



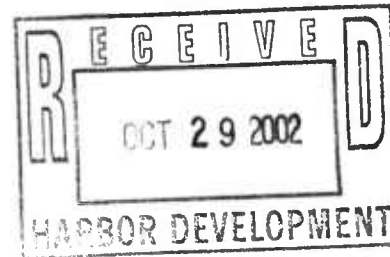
**MARYLAND
ENVIRONMENTAL
SERVICE**

Parris N. Glendening
Governor

James W. Peck
Director

October 7, 2000

Mr. Frank Hamons, Manager
Harbor Development
Maryland Port Administration
The Maritime Center II
2310 Broening Highway
Baltimore, Maryland 21224-6621



Re: MPA Contract No. 500912P - Furnace Bay
Groundwater Assessment and Modeling Report

Dear Mr. Hamons:

The Maryland Environmental Service (MES) herewith submits six (6) copies of the report entitled "Stancill's Inc. Furnace Bay Site Groundwater Assessment and Modeling Report." The report is in two volumes. Volume one consists of the technical report and Appendix A. Volume 2 consists of Appendices B through F.

If you have any questions regarding the report, or wish to schedule a meeting to discuss the report, please contact me in Annapolis at (410) 974-7295.

Sincerely,

William E. Chicca
Director,
Program Development and
Engineering Support

Enclosures:

cc: Robert Miller, Esq.
Wayne Young



**STANCILL'S INC.
FURNACE BAY SITE
GROUNDWATER ASSESSMENT
AND MODELING REPORT**



Prepared For:



**Maryland Port Administration
The Maritime Center II
2310 Broening Highway
Baltimore, Maryland 21224-6621**

Prepared By:



**Maryland Environmental Service
2011 Commerce Park Drive
Annapolis, Maryland 21401**

Volume 1 of 2

October 2002

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Appendix A - Well Completion reports, Lab analyses, Water level readings

Volume 2

Appendix B - Conceptual Geological Interpretation
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Appendix D - Modflow Report
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Appendix F - Topographic Map

1.0 Executive Summary and Conclusions

Stancill's Inc. is an active sand, gravel and earthen materials mining and processing facility located in Cecil County at 499 Mountain Hill Road, Perryville, Maryland 21903. The approximately 130-acre site is situated in the western part of Cecil County, adjacent to Principio Creek at the junction of Principio Creek and Furnace Bay.

In 2000, the site was the subject of a preliminary assessment to evaluate the feasibility of using the property as an upland containment site for dredged material from the Upper Bay channels. That study found that if the quarry were mined to the maximum extent proposed, which involves continued excavation to a maximum depth of -70ft below mean sea level, the site has the potential to provide up to 9.6 million cubic yards (MCY) of air space capacity if filled to elevation +90. Information was not available as to the quantity of air space available on the site based upon the topography at the time of the study.

At an annual average rate for maintenance dredging in the Upper Bay channels (400,000 CY per year), the 9.6 MCY of potential air space capacity could potentially provide 34 years of service. Preliminary cost estimates for material placement using hydraulic and mechanical placement means was approximately \$12.23 and \$19.82 per cubic yard, respectively. The previous report indicates that each potential method of dredged material placement would be logistically challenging.

The preliminary study of the site shows the site to be underlain by layers of sandy material, gravels and clays in variable thickness. Depths to the top of the bedrock ranged from about 40 feet to about 100 feet. Soil tests indicate that the in-place permeability of the Clayey Silt / Sandy Silt deposits beneath the site to be in the range of 10^{-6} cm/sec. Groundwater in the pit area was found about 2 feet beneath the quarry floor. The preliminary hydrogeologic assessment shows the direction of groundwater flow in the area to be in a southwesterly direction, towards Principio Creek and Furnace Bay. Within the immediate vicinity of the site, groundwater flow is in a radial pattern, flowing into the quarry, where areas have been excavated to below the water level in the adjacent surface waters. A survey of wells in the vicinity showed that a total of 17 wells have been permitted within a one-half mile radius of the quarry, (two of which have not been built). One of the identified wells is located on the Stancill property and provides potable and sanitary water for site office activities. None of the off-site wells were found to be downgradient of the property. Because of their location and low yields, the previous study concludes that placement of clean dredged material from the Upper Bay channels at the site would pose little risk to contamination to existing or permitted potable wells in the vicinity. However, the report recommended additional groundwater study to characterize current groundwater conditions and to determine the potential effects of placement of dredged material in the site on groundwater flow direction in the area and groundwater quality.

To better define potential groundwater effects as a result of placement of dredged material in the site, MPA contracted with MES to conduct additional studies. The purpose of the studies is to define current groundwater conditions in the area, including groundwater flow direction and water quality and to predict potential impacts on groundwater flow direction and water quality that may result from placement of dredged material at the site. MES contracted with KCE Engineering and URS Corporation to provide technical and engineering assistance in conducting the studies.

KCE Engineering was contracted to develop a current topographic survey of the site, to install a pumping well and piezometers at selected locations on the site and to collect representative groundwater samples for testing in a commercial laboratory. KCE Engineering was also tasked with monitoring groundwater levels in the newly installed well / piezometers over a six-month time period. In the field, the well, which was drilled into bedrock, failed to produce water. Therefore, the well was converted to a piezometer. A continuous water level recorder was installed in one piezometer, and monthly readings were collected from the remaining piezometers. KCE Engineering also performed tests to determine aquifer physical and chemical characteristics, including vertical and horizontal permeability of the soils within the perimeter buffer area. The information would then be used in developing and calibrating the groundwater model of the area.

In addition, KCE Engineering reviewed regulatory files and developed a comprehensive inventory of permitted wells that have been installed in the vicinity of the Stancill site. A total of 158 permitted wells were identified in an area surrounding the Stancill site. The area extends 2 miles north and south of the center of the Stancill site, and 1 mile east and west. KCE Engineering also obtained well completion reports for the wells to determine the geology of the well locations. None of the wells, with the exception of the potable well installed on the site to provide water for sanitary purposes, are located immediately downgradient of the site.

URS Corporation was contracted to develop and calibrate a three-dimensional groundwater flow model of the site, and then use the aquifer information and groundwater data as input to a groundwater fate and transport model. The model would then be used to predict potential changes in on groundwater flow direction and water quality that would result if clean dredged material were placed in the site. URS staff observed the installation of the monitoring well and piezometers and the collection of the groundwater samples. URS staff also performed slug tests on all of the newly installed piezometers to determine well yields.

To simulate water quality characteristics of percolate through dredged material, MES collected representative samples of dredged material from the Upper Bay region that have been deposited in the Courthouse Point dredged material containment facility located south of Chesapeake City in Cecil County. The collected dewatered dredged material was then subjected to two leaching procedures to produce simulated percolate water. Percolate water would be produced when a portion of the precipitation, which falls on the quarry site infiltrates through the dredged material. One leaching protocol that was employed is the Toxicity Characteristic Leaching Procedure (TCLP), which is the specified test protocol used to simulate leachate characteristics of solid waste to determine if the solid waste is a hazardous waste under the provisions of the Federal Resource Conservation and Recovery Act (RCRA). The results of TCLP testing are recognized as being a conservative assessment of potential leaching characteristics, due to the aggressive nature of the leaching procedure. Therefore, the resulting liquid from the TCLP test protocol is considered to be a very conservative simulation of the percolate that may be produced as precipitation passes through the dredged material. The second leaching protocol employed was conducted using deionized water as the leaching media. Samples of percolate from both leaching procedure were submitted to a commercial laboratory and analyzed to determine the concentration of specific constituents. The analytical results were then provided to URS for use as input parameters to the groundwater model.

URS Corporation used the collected data and other information to develop a conceptual geologic and hydrogeologic model of the site. The conceptual models then served as the basis for the groundwater model of the area. URS developed the model using MODFLOW, a finite-difference numerical groundwater flow model and MODPATH, a particle-tracking package used in conjunction with MODFLOW. Because of varying aquifer hydraulic properties, and the vertical/horizontal extent of the placed constituents, URS used a Modular Three-Dimensional Multispecies Transport Model (MT3D) to simulate site-specific transport and to evaluate the flow of constituents in groundwater beneath the Stancill quarry. Predictive runs were made to simulate potential transport of three indicator parameters; chloride, Total Dissolved Solids (TDS) and Iron in the groundwater that would develop after placement of dredged material at the site.

The modeling results confirm that under current excavated site conditions, the site generally serves as a groundwater sink, with radial flow of groundwater into the quarry, where it is used in the materials washing and grading operations. Model results show possible leakage from the southwest portion of the site to Principio Creek and Furnace Bay. The model indicates that when the site is filled with dredged material, the groundwater flow pattern is altered. Under filled conditions, the direction of groundwater flow is in the direction of Principio Creek and Furnace Bay, with little potential for upgradient groundwater movement. The transport model shows that constituents in groundwater will discharge into Principio Creek and Furnace Bay, which are located immediately west of the site. The model predicts that no impacts to upgradient groundwater water quality would occur as a result of placement of dredged material in the site.

The groundwater model as developed for the site includes four layers; three layers within the saprolite and the fourth layer in the bedrock. The model run simulates a 100-year time period after placement of the dredged material. To be conservative, URS elected to use the simulated percolate data derived from the TCLP leaching protocol as compared to percolate developed using the deionized water leaching procedure. The model results predict that the concentration of TDS in the groundwater within the saprolite layer after placement of dredged material would increase over time from a range of 100 to 500 mg/l to a maximum of 3,700 mg/l within the site boundaries. Chloride levels would rise from approximately 7 mg/l to 20.6 mg/l within the site boundaries, and Iron would increase from approximately 0.2 mg/l to .55 mg/l. The model predicts that these steady-state maximum concentrations would be experienced within 8 to 10 years after placement of the dredged material. The report concludes that because of the aggressive nature of the TCLP procedure, the simulated input concentrations overestimate the constituent concentrations that will be leached from the dredged material. Further, the model results do not consider adsorption and chemical precipitation of Iron and TDS as groundwater passes through the soil media, which may result in lower actual concentrations of constituents in the groundwater than predicted by the model.

Using the current site information provided by the 2002 topographic survey, MES determined that the site presently possesses an available air space capacity of 7.2 million cubic yards (MCY). This air space capacity was based upon the same berm configuration suggested by Gahagan & Bryant Associates (GBA) in the 2000 Feasibility Study of the site. This configuration includes a berm constructed to a maximum elevation of +90 feet, and the bermed area filled to that elevation. If the site was used to contain only dewatered material, berm construction is not necessary and placing and grading compacted material to a higher elevation over the site could achieve additional air space capacity. MES assumed a site configuration that placed and compacted dredged material at

3:H to 1:V slopes, with benches constructed every 30 feet of elevation over the +90 base. Under this site configuration, MES determined that the site could potentially provide up to 10.4 MCY of air space capacity. If 4:H to 1:V slopes are used, and with a maximum elevation of 148 feet, the site could provide up to 8.6 MCY of air space capacity

Based upon the results of the current site assessment and groundwater modeling effort, MES concludes the following:

- Groundwater in the vicinity of the property, under the current excavated site conditions, flows in a radial manner into the quarry site.
- Upon filling of the site with dredged material, the direction of groundwater flow in the area will change, with groundwater flowing west, in the direction of Principio Creek and Furnace Bay.
- No upgradient movement of groundwater is predicted to occur under the re-established groundwater flow regime that will develop once the site is filled with dredged material.
- With the exception of the existing production well on the site, which is used for on-site office and shop activities, no potable wells currently exist in the downgradient area between the Stancill site and Principio Creek / Furnace Bay.
- Because of the location of the site immediately proximate to Principio Creek and Furnace Bay, there is little or no probability that a potable well would be sited in the future within the downgradient area between the site and Principio Creek / Furnace Bay.
- Based upon the current site topography, the Stancill site presently offers an air space capacity of 7.2 MCY if filled to an elevation of +90, or up to 10.4 MCY of air space capacity using dewatered dredged material placed, compacted and contoured over the site to a maximum elevation of +158 feet with 3:H to 1:V slopes.
- Groundwater quality impacts in would be experienced if dredged material were placed in the site. Groundwater modeling results indicate that TDS levels in groundwater at the site are predicted to rise to a maximum expected concentration of 3,700 mg/l; chloride levels in the groundwater are predicted to rise to an expected maximum concentration of 20.6 mg/l; and Iron concentrations in groundwater are predicted to increase to an expected maximum concentration of 0.55 mg/l.
- The predicted maximum concentration of 3,700 mg/l for TDS exceeds the current SMCL standard of 500 mg/l.
- After placement of dredged material in the Furnace Bay site to a level above the elevation of groundwater in the area, any constituents leached from the dredged material that enters the groundwater will flow in the direction of and express themselves in Principio Creek and Furnace Bay.

- With the exception of the existing production well on the site, no existing upgradient or downgradient potable wells were identified that would potentially be affected by placement of dredged material in the Stancill site.
- The predicted values were obtained from the groundwater model when conservative water quality input data based upon TCLP percolate data were used as input data. Actual groundwater concentrations are expected to be less than the predicted values.
- The predicted water quality impacts to the groundwater are expected to manifest themselves within 10-years of placement of dredged material in the site.

Based upon the results of the current site assessment of the Furnace Bay property, and the groundwater flow and transport modeling effort, prospective effects to groundwater from placement of dredged material at the Stancill's Inc. site at Furnace Bay would not result in predicted conditions that would preclude the site's further consideration as a potential upland placement site for management of dredged material.

2.0 Stancill's Inc. Site at Furnace Bay

Stancill's Inc. is a commercial sand, gravel and earthen material mining facility located in Cecil County at 499 Mountain Hill Road, Perryville, Maryland 21903. The site is in the western part of Cecil County, adjacent to Principio Creek, at the point where Principio Creek flows into Furnace Bay. The site has been used for mining of earthen materials on a continuous basis since November 1972. Soil borings indicate that the site can continue to extract and process marketable material at the current rate for an additional 5 to 7 years. Additional marketable material exists on the site, but it is located in perimeter buffer areas or areas where excavation depths would increase production costs and reduce competitive marketability of the finished product. Current on-site operations include mining, washing, screening, grading and stockpiling of the various excavated materials for sale as product. Facilities are also available on-site for blending and mixing different materials to meet the specifications for a customer order. The site also has an on-site truck scale and office building. Buffer areas have been maintained along Mountain Hill Road and along the southern property boundary. Figure 2.1 is a current aerial photo of the site.

The site includes approximately 130 acres of land, approximately 100 acres of which is currently used for extraction and processing of sands, gravels, clay and other earth materials, and for the stockpiling of finished materials for marketing. The remaining portion of the site includes buffer areas to adjoining properties, Principio Creek and a wetland area between the high speed railroad tracks and the mining area. The wetland is fed by an unnamed tributary to Principio Creek, which flows across the property parallel to the railroad lines. The processed materials are commercially marketed throughout the Northeast U.S. region. The site is bordered on the west by Principio Creek, and Furnace Bay, undeveloped private land to the south; Mountain Hill Road to the East, and the high-speed railroad tracks to the North.

The site includes a series of ponds and impoundments used to contain and treat the water used in the mining and mineral processing operations. The berms were constructed exclusively from on-site materials excavated at the site. Water needed for the washing and grading of excavated materials is pumped from an on-site pond to the processing area. Effluent from the processing operations is then pumped to an upper elevation pond for removal of suspended particulates through gravity separation. No flocculents are used in the gravity separation process. Any overflow from the upper settling pond would discharge by gravity to the lower elevation pond, where the pumping facilities return the water to the processing plant. The on-site materials processing operations completely reuses all water on site. There is no discharge to surface waters of the State from the Furnace Bay site.

The fine particulates and other materials, which are produced during the materials processing operations, accumulate in the upper settling pond. A portion of this settled material is periodically removed from the upper pond by means of a dragline or excavator. This periodic removal of accumulated material from the upper pond restores its settling capacity. The removed material is marketed or placed as fill in lower elevation excavated areas on the site.

Under the provisions of the Surface Mining Permit issued by MDE, once commercial mining activities cease, reclamation of the site becomes necessary. The approved site reclamation plan includes the option of re-contouring the site using fill material. Dewatered dredged material can potentially serve as suitable fill material.



Figure 2.1 Current Aerial Photo of Stancill's Inc.

Upland placement of dredged material offers the potential to affect ground and surface waters in the vicinity, as various constituents in the material become mobilized and released to the environment. This mobilization may occur as a result of the disturbance of the sediments or as a result of chemical changes that occur as dredged materials dry out and the sulfur species oxidize. Water percolating through the dried material may become acidified by the oxidized sulfur and dissolve various constituents in the dredged material. Any site that is proposed for use as a dredged material placement site must be studied to determine the potential for adverse effects to groundwater and surface water in the area.

Soil borings conducted on the site confirm the presence of clay and other fine material beneath the Furnace Bay site. This is typical of marine deposit geologic formations found in Coastal Plain formations. Silts and clays, because of their small particle size and dense structure when compacted, have the ability to retard the flow of groundwater. The presence of such materials on the site may provide a level of protection to groundwater beneath the site, and serve to contain on site any pollutants that may potentially be present in the dredged material placed in the site.

To assess the potential for impacts to groundwater in the area, including any off-site wells in the vicinity of the site, that may occur as a result of placement of dredged material in the Stancill pit, MPA contracted with MES to conduct a study of the site. The study would include an assessment of current groundwater conditions and development of a groundwater model to predict any changes that may occur as a result of placement of dredged material in the site.

3.0 Summary of Previous Studies

During 2000, the site was the subject of a preliminary assessment to evaluate the feasibility of using the property as an upland containment site for dredged material from the Upper Bay channels. That study found that the site has the potential to provide up to 9.6 million cubic yards (MCY) of air space capacity if fully mined to the planned configuration and the site were then backfilled to elevation +90. This volume calculation assumes continued mining of the site to a maximum depth of -70 feet below mean sea level (MSL). Using a 30% reduction in volume for cut sediment after consolidation, the 9.6 MCY of air space capacity can contain approximately 13.6 MCY of cut quantity of dredged material. Thus, the site after completion of mining activities could contain up to 13.6 MCY of cut dredged material after raising the dikes to an elevation of +90 feet above MSL. At the annual rate of maintenance dredging of the Upper Bay channels (400,000 CY per year), the 9.6 MCY of air space capacity could potentially provide 34 years of service. Preliminary cost estimates for material placement using hydraulic and mechanical placement means was approximately \$12.23 and \$19.82 per cubic yard, respectively.

The earlier site study in 2000 indicates that either placement method offers technical challenges. Hydraulic placement could be impaired by long pumping distances, extensive shallow water and recreational boating issues, potential icing conditions as well as return flow effluent discharge issues. Mechanical placement would be similarly challenging, involving location of barge unloading facilities, as well as extensive trucking requirements and traffic issues.

With respect to site geology, the study conducted during 2000 found the site to be located in the Atlantic Coastal Plain Physiographic Province. Soil borings show the site to be underlain by layers of sandy material, gravels and clays in variable thickness. Depths to the top of the bedrock ranged from about 40 feet to about 100 feet. Soil tests indicate that the in-place permeability of the Clay Silt / Sandy Silt deposits beneath the site to be in the range of 10^{-6} cm/sec. Groundwater in the pit area was found to be shallow; being encountered about 2 feet beneath the quarry floor.

A preliminary hydrogeologic assessment found the general direction of groundwater flow in the area is in a southwesterly direction, flowing into Principio Creek and Furnace Bay. The study found that within a five-mile radius of the site, 2,600 well permits have been issued, and 112 wells were identified as Public or Industrial well that would be expected to have a large withdrawal rate. Within a one-half mile radius of the quarry, 17 wells have been permitted (two of which have not been built). None of the off-site wells are located downgradient of the property, between the site and Principio Creek or Furnace Bay. The study concluded that because the proximate wells located upgradient of the site are drilled into bedrock and do not include large capacity production wells, they would have a limited radius of influence, and that placement of clean dredged material from the Upper Bay channels at the site would pose little risk to contamination of potable wells in the vicinity.

The study identified groundwater as an issue that would require additional study. The depth of some on-site excavations is near the mean low water elevations in Furnace Bay, and likely below the elevation of the surficial unconfined aquifer at the site location. These deep excavations on the property likely serve as groundwater "sinks," resulting in the flow of groundwater into the site. Placement of dredged material by either hydraulic or mechanical methods in the site could

potentially result in effects on groundwater beneath the property and in the vicinity of the site. In addition, depending upon the depth of the excavation and the number of aquifers breached by the mineral extraction operations, the potential exists for inter-aquifer movement of groundwater. Once filled to capacity, groundwater flow directions in the site area would be altered, offering the potential to affect groundwater quality in the immediate region. The study concluded that a site geotechnical assessment would be necessary to adequately assess current groundwater conditions as well as the hydrogeologic suitability of the site to serve as a containment facility, and the potential effects on groundwater resources in the area that may result from placement of dredged material.

4.0 Groundwater Study Approach

MES developed a plan for the assessment of groundwater at the Furnace Bay site to assist in determining the feasibility of using the property as a dredged material containment facility. The plan was subsequently reviewed and approved by the MPA and the study authorized through the provisions of an existing Intergovernmental Agreement between MES and MPA. This study plan includes the following component elements:

1. An assessment of current groundwater conditions in the vicinity of the site. The assessment would include a determination of the rate and direction of groundwater flow at the site under the current configuration and a determination of existing groundwater quality.
2. Development of a current topographic map of the site.
3. Development of a hydrogeologic assessment of the site to determine subsurface conditions.
4. Development of a three-dimensional groundwater flow model of the site and the immediate area that reflects current groundwater conditions and conditions that would develop if the site were filled with dredged material.
5. Development of a predictive groundwater model to determine potential impacts to groundwater quality due to percolation of precipitation through dredged material deposited at the site.

MES contracted with KCE Engineering, Inc. to provide engineering services to MES during the investigation of the Stancill site. KCE was contracted to provide the following work elements as part of the site study:

1. Install one groundwater monitoring well and up to 9 piezometers at selected locations on the site to specified depths.
2. Conduct a current topographic survey of the site to provide boundary conditions to the groundwater model and current available air space volume.
3. Collect representative groundwater samples and provide laboratory analyses of the groundwater for identified constituents.

4. Measure and record groundwater elevations in the wells and piezometers for a six-month time period to determine groundwater level fluctuations over time.
5. Determine vertical and horizontal permeability in the upgradient surficial soils found in the perimeter buffer area on the site.
6. Conduct a detailed inventory of permitted wells in the vicinity of the site.

MES contracted with URS Corporation to develop a comprehensive groundwater model of the site. URS was contracted to provide the following specific work:

1. Develop a conceptual geologic model of the site.
2. Develop a conceptual hydrogeologic interpretation of the site.
3. Develop a MODFLOW three-dimensional groundwater flow model of the site to simulate current conditions and conditions that will develop as a result of placement of dredged material in the site
4. Develop a three-dimensional groundwater transport model of the site to predict changes in groundwater quality as a result of placement of dredged material in the site.

To provide necessary input data to the groundwater transport model, MES would collect samples of dredged material that would be representative of materials likely to be placed in the Stancill quarry. MES decided to collect samples of dredged material that had been previously placed in the Courthouse Point dredged material containment facility. This material originated from the Upper Bay channels (North of Pool's Island and South of Sassafras) and was placed in the dredged material containment site during the 96-97 dredging effort.

The collected samples would then be subjected to a leaching procedure to produce a liquid fraction that is intended to simulate percolate water that would form when precipitation passes through dredged material. The selected leaching procedure is identified as the Toxicity Characteristic Leaching Procedure (TCLP). The TCLP procedure has been promulgated by the Federal Environmental Protection Agency, and is used as the definitive protocol for determining if a solid waste is a hazardous waste by exhibiting the characteristic of toxicity. The TCLP test is designed to simulate the leaching that takes place in a sanitary landfill, where aggressive leaching conditions can be experienced. The leaching uses a buffered acetic acid solution. The resultant liquid would then be analyzed for specific constituents and the data provided to URS Corporation for use as input data in the groundwater transport predictive model.

The investigative efforts and modeling reports would be completed by the contractors and provided to MES for assessment. MES staff would then review the studies to assess the potential effects on groundwater in the area that may result as a result of using the site as a dredged material placement facility.

5.0 Study Protocols and Procedures

5.1 KCE Engineering, Inc.

MES contracted with KCE Engineering to perform the site soils and groundwater investigative effort. The specific scope of work included the following:

- Development of a current topographic survey of the area (approximately 140 total acres). The survey will be to the 2-foot contour level of precision. The topographic information will be used as input information to the groundwater assessment and model.
- Installation of up to nine (9) groundwater piezometers and one pumping well and collection of hydrogeologic information at or near the Stancills, Inc. property in Cecil County. During piezometer and well installation, soil-boring information will be logged to determine subsurface conditions and materials at the site. A 72-hour pumping test will be performed on the pumping well. Budget provisions are included to enable a second 72-hour pumping test to be performed in the event that geologic conditions at the site necessitate an additional well and pumping test. Hydrogeologic information to be collected includes the following:
 - Soil identification and classification
 - In-situ permeability and transmissivity
 - Well yield and drawdown characteristics
 - Inventory and field verification of water supply wells within a one-mile distance of the site boundary.
 - Climatic data for the area, including evapotranspiration and precipitation data.
- Installation of a continuous recorder and monthly observation of water levels in the piezometers to measure groundwater elevations for up a six-month period to determine groundwater elevations over time. A sample of the groundwater beneath the site will be collected for laboratory testing. A sample will be collected from each of the piezometers and from the pumping well. Each sample will be analyzed separately. Chemical analyses of the groundwater will be performed for the following constituents:
 - Field determination of dissolved oxygen (DO), pH, temperature, conductivity and Oxidation Reduction Potential (ORP).
 - Sodium
 - Potassium
 - Calcium
 - Magnesium
 - Bicarbonates
 - Chloride
 - Sulfate and Sulfide
 - Nitrate-Nitrogen
 - Iron
 - Manganese
 - Arsenic
 - Cadmium

- Chromium
- Copper
- Lead
- Zinc
- Nickel
- Selenium
- Total Petroleum Hydrocarbons
- Nitrate-Nitrite-Nitrogen
- Total Nitrogen
- Total Kjeldahl Nitrogen
- Alkalinity
- Ammonia Nitrogen
- Chemical Oxygen Demand
- Dissolved Solids
- Total Phosphorous
- Total Organic Carbon
- Carbon Dioxide
- Ferrous Iron
- Methane

The location of the piezometers and the selected well site are shown on Figure 5.1. Well completion reports, laboratory analysis sheets and recorded water levels are included as Appendix A to this report.

5.2 URS Corporation

MES contracted with URS Corporation to develop and calibrate the groundwater models necessary to assess groundwater flow in the area and predict potential changes to groundwater in the area if dredged material were placed at the site. The specific scope of work included the following:

- Development of a predictive groundwater model to estimate groundwater conditions and flow directions in the vicinity of the Furnace Bay site after placement of dredged material. Subtasks include:
 - Oversight of well/piezometer installation and field testing and assessment of data gathered during field investigative activities.
 - Development of a conceptual geologic model of the site that is based upon the field investigative activities.
 - Development of a conceptual hydrologic model of the site that is based upon the results of the field investigative activities.
 - Development and calibration of a MODFLOW Groundwater Flow Model of the site based upon the conceptual geologic and hydrogeologic interpretations.
 - Development of a MT3DMS transport model to model the transport and degradation of three chemical compounds to simulate potential groundwater impacts as a result of placement of dredged material in the site.



MARYLAND
ENVIRONMENTAL
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FURNACE BAY
WELL LOCATIONS
FIGURE 5.1

The conceptual geologic model is included as Appendix B to this Report. The conceptual hydrogeologic model is included as Appendix C to this report. The Groundwater Flow Model is included as Appendix D to this report. The Transport Model is included as Appendix E to this report. The current site topographic map is included as Appendix F.

5.3 Maryland Environmental Service

MES reviewed prior studies and geologic information regarding the site and met with the subcontractors and the property owner to select appropriate areas within the Stancill quarry for installation of the pumping well and piezometers. MES supervised field activities and testing efforts undertaken by the selected subcontractors at the site and reviewed and evaluated the resultant data and other work products.

In addition, MES obtained representative samples of dewatered dredged material for analytical testing and production of simulated percolate water. Analytical results from testing of the percolate data was used provided to URS Corporation and subsequently used as input data to the groundwater model.

MES used the current topographic survey information provided by KCE Engineering to determine the current air space capacity available in the Stancill quarry. In addition, MES developed an alternative final site configuration to determine the additional site air space capacity that could be provided.

Finally MES evaluated the results of the groundwater assessment and modeling effort. Based upon this assessment, MES then prepared the final report regarding the potential impacts to groundwater as a result of placement of dredged material in the Stancill quarry.

6.0 Field Investigations and Activities

6.1 Piezometer Installation & Testing

KCE Engineering installed the well and piezometers on the site during October and November of 2001. The installed piezometers were designated PZ 1 through PZ 9. However, the pumping well, which was drilled to a depth of approximately 90 feet below the bottom of the quarry floor, did not produce water, which would be necessary to determine the aquifer characteristics necessary as input data to the model. This information would be determined by a pump test of the well. After discussion with URS, it was decided that there was a high probability that installation of another well in a different location within the quarry may produce another dry hole. Since the necessary aquifer information could be determined by slug testing the nine newly installed piezometers, a decision was made to abandon the well pump test task and to slug test all of nine piezometers. The results from the slug tests will provide the necessary aquifer data. The slug test results can be found in Appendix C. URS Corporation conducted the slug tests on the nine piezometers during late November 2001. Piezometer information is summarized in Table 6.1, below. The well completion reports are included in Appendix A to this report.

Table 6.1 - Piezometer Information

Number	Installed Depth	Material Description
PZ 1	25 Feet	Brown silty sand; brown sandy clay
PZ 2	40 Feet	Light brown sand & gravel; light Brown silty sand
PZ 3	20 Feet	Light brown silty sand
PZ 4	25 Feet	Light brown silty sand
PZ 5	20 Feet	Light brown silty sand
PZ 6	20 Feet	Light brown silty sand
PZ 7	20 Feet	Light brown silty sand
PZ 8	40 Feet	light brown to dark brown silty sand
PZ 9	90 Feet	0 to 40 ft. - Light brown to dark brown silty sand 40 to 90 ft. - Light brown to dark brown silty sand with a trace of red clay

On November 6, 2001, KCE Engineering collected representative samples of groundwater from each of the nine piezometers and submitted the groundwater samples to Martel Laboratories for analyses. Additional field measurements for Dissolved Oxygen, pH, Temperature, Conductivity and Oxidation Reduction Potential were taken in the field for each piezometer at the same time that the groundwater samples were collected. Table 6.2 contains a summary of the analytical test results of the groundwater. The laboratory analytical sheets and Chain of Custody Forms are included in Appendix A of this report.

Table 6.2: Analytical Results from Sampling Wells at Stancill Quarry

Parameter	Detection Limit	Units	Minimum Concentration	Maximum Concentration	Median Concentration	Average Concentration	PZ-1	PZ-2	PZ-3	PZ-4	PZ-5	PZ-6	PZ-7	PZ-8	PZ-9
Methane, dissolved	0.0005	mg/L	0.00053	0.2	0.0063	0.052	0.2	0.0011	0.066	0.09	0.0063	0.0011	0.00053	<0.0005	<0.0005
Carbon Dioxide	1	mg/L	8	140	20	35.111	140	9	24	8	60	16	20	14	25
Total Petroleum Hydrocarbons	2	mg/L	ND	ND	ND	ND	<2	<2	<2	<2	<2	<2	<2	<2	<2
Sulfide	0.1	mg/L	ND	ND	ND	ND	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate - Nitrite Nitrogen	0.05	mg/L	0.12	1.7	0.29	0.500	0.23	0.35	0.12	<0.05	<0.05	<0.05	1.7	0.18	0.42
Kjeldahl Nitrogen (Total)	0.5	mg/L	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ammonia Nitrogen	0.2	mg/L	ND	ND	ND	ND	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chemical Oxygen Demand	20	mg/L	21	230	49	70.429	230	21	<20	71	65	49	36	21	<20
Phosphorous (total)	0.05	mg/L	0.09	0.65	0.33	0.359	0.49	0.26	0.17	0.57	0.65	0.55	0.33	0.12	0.09
TOC (Total Organic Carbon)	0.1	mg/L	1.8	22	6.9	9.567	20	5	6.9	22	5.9	14	7.2	3.3	1.8
Sodium	0.5	mg/L	3.6	13	7.5	7.500	5.8	13	7	4.9	9	3.6	8.2	7.5	8.5
Potassium	5	mg/L	ND	ND	ND	ND	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Calcium	0.5	mg/L	2.8	9.7	5.5	5.578	5.5	5.9	8	5.6	9.7	3.6	4.8	4.3	2.8
Magnesium	0.5	mg/L	0.9	8.3	2	2.533	1.3	1.9	2	2.3	8.3	2.1	2.4	0.9	1.6
Iron	0.01	mg/L	0.27	120	4.5	16.979	120	5.7	0.89	7.6	11	2.5	4.5	0.27	0.35
Manganese	0.01	mg/L	0.04	4.2	0.12	0.616	0.26	0.12	0.11	0.35	4.2	0.3	0.09	0.07	0.04
Arsenic	0.005	mg/L	ND	ND	ND	ND	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cadmium	0.0005	mg/L	0.0005	0.0007	0.0006	0.001	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0007	<0.0005	<0.0005	<0.0005
Chromium	0.005	mg/L	0.007	0.09	0.035	0.036	0.09	0.018	<0.005	0.047	0.011	0.035	0.047	<0.005	0.007
Copper	0.005	mg/L	0.008	0.027	0.018	0.017	0.02	0.008	0.01	0.027	0.023	0.018	0.014	<0.005	<0.005
Lead	0.005	mg/L	0.007	0.027	0.014	0.017	0.027	0.007	<0.005	0.025	0.016	0.012	0.012	<0.005	<0.005
Zinc	0.01	mg/L	0.03	0.12	0.05	0.053	0.12	0.05	0.03	0.06	0.05	0.04	0.07	0.03	0.03
Nickel	0.005	mg/L	0.007	0.037	0.011	0.014	0.015	0.007	0.008	0.014	0.019	0.011	0.037	0.007	0.009
Selenium	0.005	mg/L	ND	ND	ND	ND	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bicarbonates (as CaCO3)	1	mg/L	4	39	25	23.250	39	<1	18	<1	32	<1	<1	4	<1
Chloride	2	mg/L	6	25	14	15.222	15	13	14	10	13	6	25	19	22
Sulfate	5	mg/L	6.1	41	16	16.333	17	16	6.7	41	20	20	9.2	6.1	11
Nitrate Nitrogen	0.05	mg/L	0.1	1.7	0.2	0.500	0.2	<0.05	0.1	<0.05	<0.05	<0.05	1.7	0.1	0.4
Nitrite Nitrogen	0.02	mg/L	0.02	0.35	0.03	0.102	0.03	0.35	0.02	<0.02	0.03	<0.02	<0.02	0.08	<0.02
Total Nitrogen	0.05	mg/L	0.12	1.7	0.29	0.500	0.23	0.35	0.12	<0.05	<0.05	<0.05	1.7	0.18	0.42
Alkalinity, total (as CaCO3)	1	mg/L	4	39	25	23.250	39	<1	18	<1	32	<1	<1	4	<1
Solids (dissolved)	1	mg/L	18	210	62	79.444	210	54	64	18	140	50	69	48	62
Iron (ferrous)	0.01 OR 60						indeterminate								
Iron (Ferric by Calculation)	60						indeterminate								

Iron (ferrous) and Iron (Ferric by Calculation) results were indeterminate

ND = Non detect

On November 6, 2001 KCE Engineering also commenced measuring and recording the water level in each of the piezometers. This water level recordation effort continued on a monthly basis until May 30, 2002. On December 11, 2001, KCE Engineering installed a continuous water level monitor in PZ6 and commenced recordation of water levels on an hourly basis. A summary of the results of water level monitoring is found in Table 6.4.

Table 6.3
Field Measurements

Ground Water Monitoring					
Stancill Quarry, Furnace Bay					
Field Measurements of Water Samples taken on November 6, 2001					
Project # 01116.00					
Piezometer #	Dissolved Oxygen (mg/l)	pH	Temperature (°C)	Conductivity (S/cm)	Oxidation Reduction Potential ORP (mV)
PZ 1	3.10	5.77	14.06	0.496	-16
PZ 2	5.88	5.26	15.60	0.099	183
PZ 3	4.26	5.29	14.28	0.200	-8
PZ 4	4.03	5.33	16.57	0.077	132
PZ 5	3.80	5.38	13.77	0.247	97
PZ 6	5.95	4.70	12.76	0.087	277
PZ 7	7.37	4.61	12.86	0.142	277
PZ 8	8.76	5.18	12.14	0.101	252
PZ 9	7.52	4.87	12.14	0.119	270

Table 6.4 Monthly Water Level Readings

Monthly Ground Water Levels															
Stancill Quarry, Furnace Bay															
November 2001 through May 2002															
Project # 01116.00															
Peizometer #	Elevation of PVC Casing (ft) amsl	Tape Reading (Depth in Feet)							Ground Water Elevation (Feet)						
		Nov. 6	Dec. 11	Jan.8	Feb.6	Mar. 7	April 3	May 30	Nov. 6	Dec. 11	Jan.8	Feb.6	Mar. 7	April 3	May 30
PZ 1	23.51	16.43	16.41	16.87	16.87	16.95	16.74	16.84	7.08	7.10	6.64	6.64	6.56	6.77	6.67
PZ 2	13.94	4.89	5.02	5.64	4.96	5.29	4.50	4.56	9.05	8.92	8.30	8.98	8.65	9.44	9.38
PZ 3	21.86	18.07	18.58	18.62	18.77	18.84	18.44	18.63	3.79	3.28	3.24	3.09	3.02	3.42	3.23
PZ 4	13.59	12.28	13.83	13.44	14.06	14.22	12.97	13.71	1.31	-0.24	0.15	-0.47	-0.63	0.62	-0.12
PZ 5	38.24	24.59	24.66	24.81	24.74	24.83	24.55	24.58	13.65	13.58	13.43	13.50	13.41	13.69	13.66
* PZ 6	11.04	8.15	9.18	9.41	9.85	10.49	9.82	10.13	2.89	1.86	1.63	1.19	0.55	1.22	0.91
PZ 7	8.69	6.62	7.78	7.41	8.02	8.19	7.48	8.1	2.07	0.91	1.28	0.67	0.50	1.21	0.59
PZ 8	100.66	61.85	61.88	62.22	62.40	62.60	62.70	62.89	38.81	38.78	38.44	38.26	38.06	37.96	37.77
PZ 9	18.35	15.13	16.18	16.14	16.77	17.09	16.45	16.9	3.22	2.17	2.21	1.58	1.26	1.90	1.45

* Level Logger installed on December 11, 2001 to observe continuous water levels

6.2 Site Survey and Placement Capacity

On November 16, 2001, KCE contracted for an aerial topographic photo of the site to be taken. KCE Engineering then used the aerial photo to develop a current topographic map of the site. A topographic map at a scale of 1 inch = 100 feet was prepared. The data was collected in a digital AutoCAD release format and stored on a CD. A copy of the topographic map of the site is included as Appendix F to this report. MES then employed the current topographic information to determine the air space capacity currently available at the site. For comparative purposes, MES used the same site configuration that was suggested by Gahagan & Bryant Associates (GBA) in the Feasibility Study of the site that was conducted in 2000. That site configuration includes an earthen berm constructed from on-site materials to a maximum elevation of +90 feet. That volume was also based upon an assumption that the site had been excavated to a depth of -70 feet below MSL, which is the configuration approved in the current mining permit. The berm was used since the GBA study included examining the feasibility of hydraulic placement of dredged material in the site.

Using the current site information provided by the 2001 topographic survey and employing the GBA site configuration, MES determined that the site presently possesses an available air space capacity of 7.2 MCY. However, if the site was used to contain only dewatered material, berm construction is not necessary. In addition, by placing material in compacted lifts and grading the compacted material to a higher elevation over the site, additional air space capacity can be provided. MES assumed several finished site configurations that includes the +90 foot elevation as the base and then steps in with a 10-foot bench to place additional material. Using 4H to 1:V side slopes and constructing 10-foot benches at every 30-foot increase in elevation to a maximum elevation of +148 feet above MSL, MES determined that the site could potentially provide up to 8.6 MCY of air space capacity based upon the current topography (Figure 6.1). With 3:1H to 1:V slopes and benches every 30 feet of increased elevation over the +90 foot berm, MES found that the site could currently provide up to 10.4 MCY of air space capacity (Figure 6.2). The final site configuration suggested by GBA is shown as Figure 6.3, and the MES suggested modified site configurations are shown as Figures 6.1 and 6.2.

6.3 Permeability Test

To determine the ability of groundwater to move through the soil material within the perimeter buffer area along Mountain Hill Road, additional permeability data was required. To obtain this information, on June 4, 2002 KCE Engineering installed two soil test borings in the overburden material at the Stancill site. The soil borings were cased with 4-inch diameter PVC casings. The first test boring, designated Well No. 1, was drilled to a depth of approximately 45 feet below ground surface. The second soil boring, designated Well No. 2 was drilled to a depth of approximately 25 feet below ground surface. On June 5, 2002, horizontal and vertical permeability tests were performed on the two wells. Data was recorded in the field following the falling head testing method and calculation procedures as specified in ASTM D 6391-99. This test procedure was designed to determine the permeability values that are the maximum possible in the vertical direction and the minimum possible in the horizontal direction. The test protocol description and calculations are included in Appendix A to this report. The time-weighted average permeability results for the overburden material in the buffer area are summarized in Table 6.5.

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SCALE: 1" = 350'

4 TO 1 SLOPES 10 ft. BENCH EVERY 40 ft.

PHOTOGRAMMETRY BY
HARFORD AERIAL SURVEYS, INC.
DATE OF PHOTOGRAPHY: NOVEMBER 16, 2001



MARYLAND
ENVIRONMENTAL
SERVICE

STANCILL QUARRY
CECIL COUNTY, MARYLAND
FIGURE 6.1



SCALE: 1" = 350'

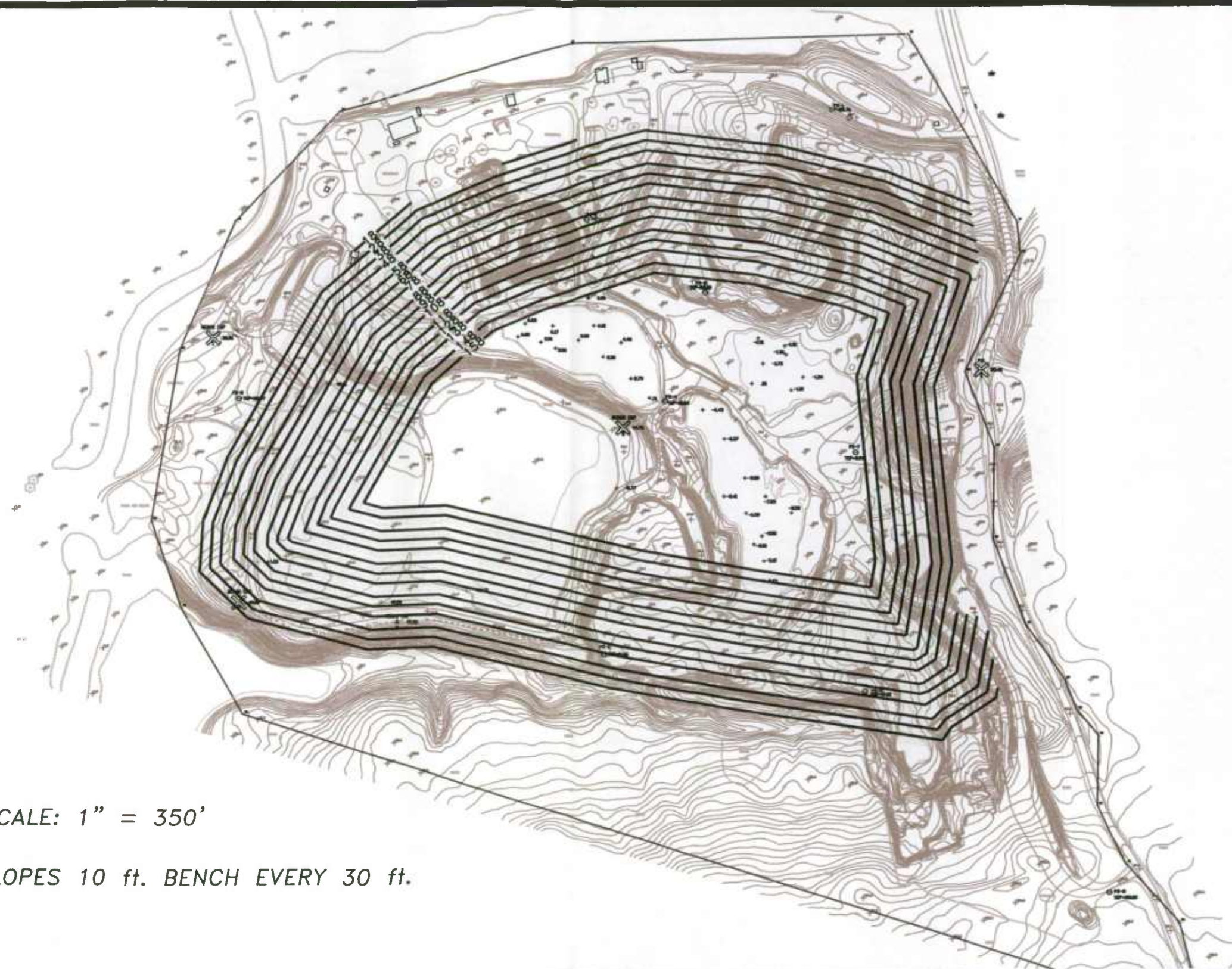
3 TO 1 SLOPES 10 ft. BENCH EVERY 30 ft.

PHOTOGRAMMETRY BY
HARFORD AERIAL SURVEYS, INC.
DATE OF PHOTOGRAPHY: NOVEMBER 16, 2001



MARYLAND
ENVIRONMENTAL
SERVICE

STANCILL QUARRY
CECIL COUNTY, MARYLAND
FIGURE 6.2



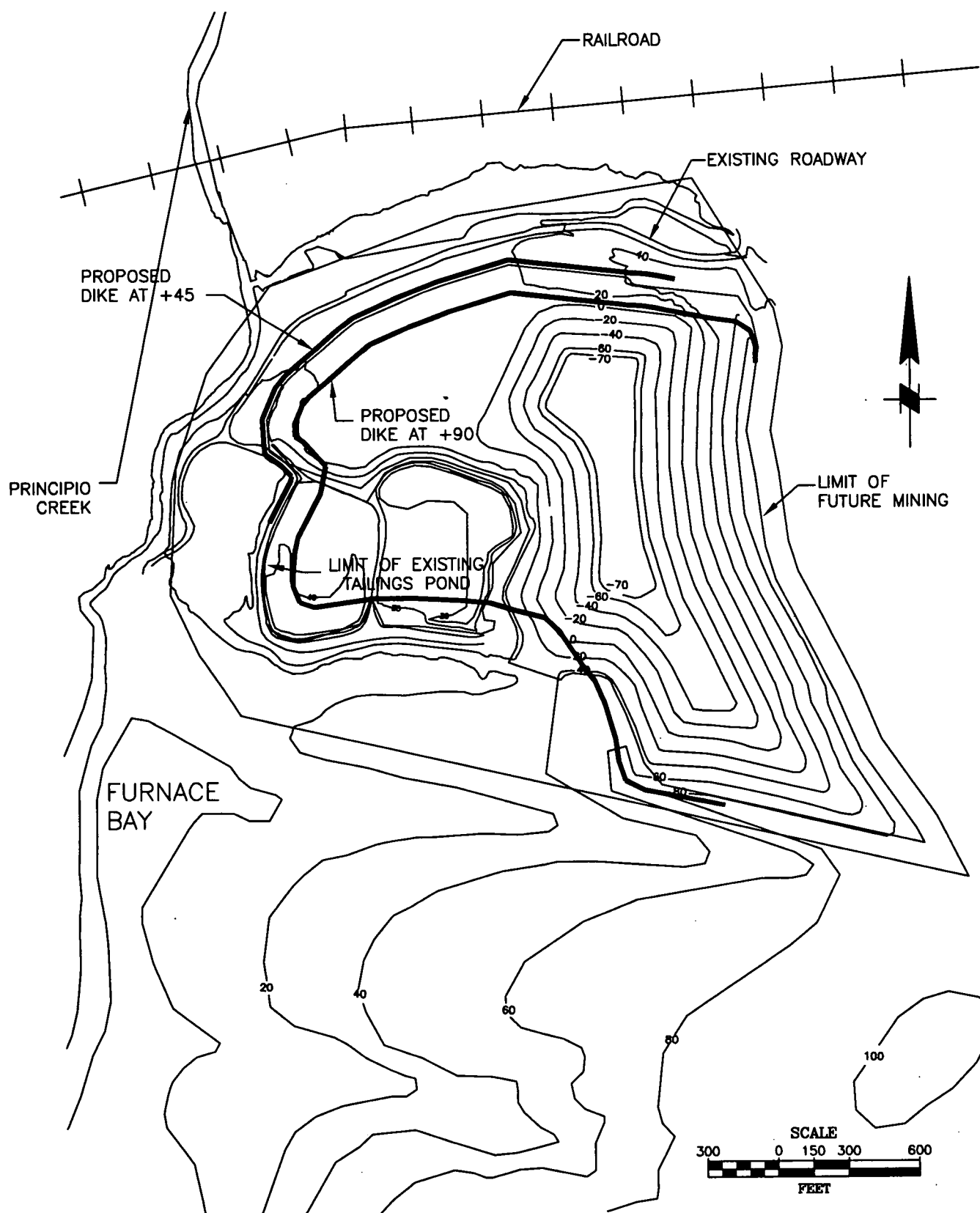


Figure 6.3 - GBA FINAL SITE CONFIGURATION - 2000

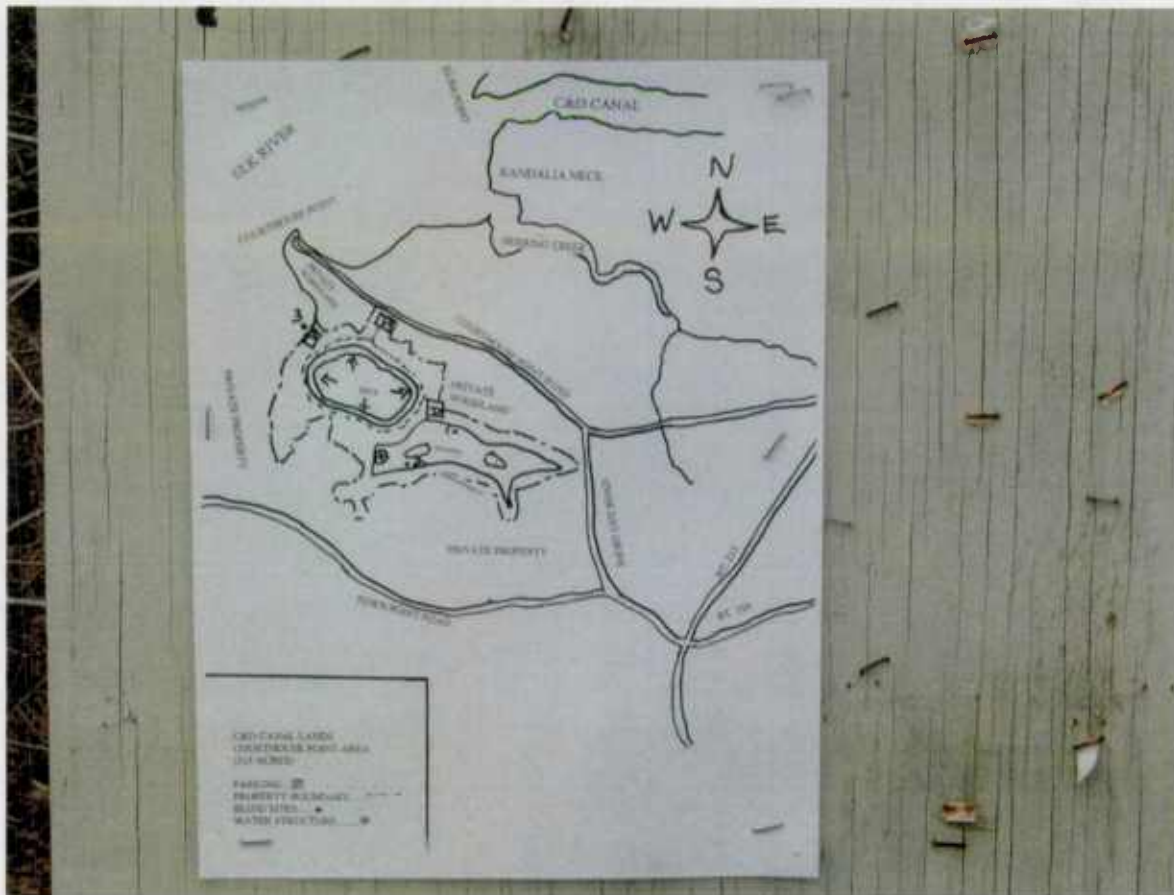
Table 6.5 - Overburden Permeability Data

Well No.	Depth	Vertical Permeability	Horizontal Permeability
1	45 Feet	1.80×10^{-3} cm/sec	2.37×10^{-3} cm/sec
2	25 Feet	5.80×10^{-4} cm/sec	1.47×10^{-4} cm/sec

6.4 Dredged Material Sampling & Characterization Procedures

On February 20, 2002, MES collected representative samples of dredged material from the Courthouse Point dredged material containment facility located in Cecil County, south of Chesapeake City. Figure 6.4 is a photo of the Courthouse Point dredged material containment site location map and Figure 6.5 illustrates the site.

Figure 6.4 Courthouse Point DMCF Site Map



The facility was constructed by and is maintained by the US Army Corps of Engineers (COE), Philadelphia District as a dredged material containment facility. The containment site is used to manage dredged material removed from the Upper Bay approach channels to the C&D Canal. A COE representative advised MES that the COE had recently rebuilt one of the dikes. This process resulting in the mixing of some of the dredged material at the facility. This would serve to provide a more homogeneous soil sample for analytical testing purposes.

Figure 6.5 Courthouse Point Site Photo



Since the exact origins of the dredged material that would be placed at the proposed study area is unknown; other than the fact that the material will be clean, and due to the geographical and hydrological features of the bay, sediment characteristics are likely to vary significantly. Therefore, rather than determining composite samples or delineating representative project segments from a specific dredging area, a general composite sample was collected from an area where dredged material from multiple sources has already been deposited. The Courthouse Point site is believed to be a desirable collection point due to it being an ideal composite sample.

The primary objective of this elutriate testing is to adequately and accurately characterize the dredging and reference area. Since the reference area is rather broad, it is believed that an accurate composite sample could be collected from the Courthouse Point containment facility. The Courthouse Point site contains an ideal composite sample that would represent dredged material collected from multiple clean areas of the bay. A sample from this area would accurately represent clean sediments for use in the chemical transport model.

In order to adequately characterize the dredge material five samples and a duplicate were collected from Courthouse point. Sample collection consisted of adequate sampling equipment appropriate to the site and the study, and non-contaminating sampling apparatus capable of obtaining representative samples. This equipment consisted of a stainless steel shovel and bucket. The shovel was used to collect the sample and the bucket was used to mix grab samples of dredged material. The samples placed in the bucket were mixed using the shovel. The samples were then placed in the appropriate containers then shipped to laboratory for analysis.

In order to prevent cross contamination all sampling equipment was decontaminated between sample collection efforts. The decontamination consisted of triple rinsing the equipment using an Alconox solution and then rinsed with de-ionized water.

The samples were preserved using the appropriate chemicals and refrigeration so that the sample integrity was not compromised. Following the sample collection, they were placed in the appropriate sample containers and stored in coolers on ice at 4° C until they are shipped to the laboratory.

6.5 Dredged Material Sample Analysis & Results

The sediment samples were then submitted to Atlantic Coast Laboratories (ACL) for analytical testing and leaching to produce simulated percolate water. To simulate water quality characteristics representative of percolate water that would be produced at the Stancill site, MES directed ACL to subject the collected sediment samples to two different leaching procedures. Percolate water would be produced when a portion of the precipitation that falls on the quarry site infiltrates through the dredged material and eventually reaches groundwater beneath the site. This percolate water would then combine with groundwater beneath the site and move along with the general groundwater in the area. Depending upon the chemical characteristics of the percolate water, groundwater quality beneath the site may be affected. Samples of percolate from both leaching procedure were submitted to a commercial laboratory and analyzed to determine the concentration of specific constituents. The analytical results were then provided to URS. Selected chemical constituent data would be used as input parameters to the groundwater predictive model.

One leaching protocol that was employed is known as the Toxicity Characteristic Leaching Procedure (TCLP). This is the test protocol specified in State and Federal regulations that is used to simulate leachate characteristics of solid waste to determine if the solid waste is a hazardous waste under the provisions of the Federal Resource Conservation and Recovery Act (RCRA). The results of TCLP testing are recognized as being a conservative assessment of potential leaching characteristics, due to the aggressive nature of the leaching procedure, which uses a buffered acid extract solution. Therefore, the resulting liquid from the TCLP test protocol is considered to be a very conservative simulation of the percolate that may be produced as precipitation passes through the dredged material. The analytical results obtained from testing of the TCLP percolate is shown in Table 6.6.

Table 6.6 - TCLP Percolate Data Test Results

Parameter	Detection Limit	Units	SS-1	SS-2	DUP	SS-3	SS-4	SS-5
TCLP								
Bicarbonate, Alkalinity	1	mg/L	170	165	130	170	891	840
Carbon dioxide	1.25	mg/L	ND	ND	ND	6.25	ND	1.25
Chloride	0.39	mg/L	ND	24.8	19.4	ND	ND	ND
Ferrous Iron	0.02	mg/L	ND	ND	ND	ND	ND	ND
Nitrate	0.06	mg/L	2.14	ND	ND	0.372	ND	ND
Nitrate/Nitrite	0.08	mg/L	2.14	ND	ND	0.372	ND	ND
Total Dissolved Solids	10	mg/L	4,262	4,402	4,394	4,204	4,409	4,441
Sulfate	0.38	mg/L	91.5	129	120	115	18.2	78
Total Alkalinity-Titration	1	mg/L	170	165	130	170	891	840
Ammonia	0.2	mg/L	0.28	0.46	0.21	0.73	ND	ND
Chemical Oxygen Demand	10	mg/L	5,440	5,630	5,450	5,240	5,570	5,540
Phosphorous, total	0.02	mg/L	0.06	0.05	0.05	0.06	0.07	0.06
Total Kjeldahl Nitrogen	0.2	mg/L	1.4	0.85	0.7	1.9	0.77	0.78
Nitrogen, total	0.2	mg/L	3.5	0.85	0.7	2.3	0.77	0.78
Total Organic Carbon	100	mg/L	1,894	1,943	1,947	1,896	1,939	1,932
Methane		ug/L	2	2	2	2	2	2
Arsenic	0.1	mg/L	ND	0.15	0.12	ND	ND	ND
Chromium	0.1	mg/L	ND	ND	ND	ND	ND	ND
Cadmium	0.1	mg/L	ND	ND	ND	ND	ND	ND
Lead	0.1	mg/L	ND	ND	ND	ND	ND	ND
Selenium	0.1	mg/L	ND	ND	ND	ND	ND	ND
Calcium	5	mg/L	15	15	16	13	7.5	21.1
Copper	0.1	mg/L	ND	ND	ND	ND	ND	0.36
Nickel	0.1	mg/L	0.16	ND	ND	0.16	ND	0.44
Iron	0.5	mg/L	ND	0.66	ND	ND	ND	ND
Magnesium	0.5	mg/L	6	12	11	6.2	2.6	4.96
Manganese	0.1	mg/L	6.5	11	11	7.1	3.8	3.71
Sodium	10	mg/L	1,182	1,114	1,072	1184	1180	1143
Zinc	0.1	mg/L	0.67	0.45	0.41	0.89	0.33	0.65
Total Petroleum Hydrocarbons	5.5	mg/L	21	ND	ND	9.7	ND	ND
Sulfide	0.03	mg/L	ND	ND	ND	ND	ND	ND

The second leaching protocol employed was conducted using deionized water as the leaching media. The analytical results obtained from testing of the deionized water percolate are shown in Table 6.7 below.

Table 6.7 – ASTM Leaching Protocol Test Results

ASTM Leachate								
Sodium	0.2	mg/L	2.76	9.6	14	2.95	7.6	7.61
Bicarbonate, Alkalinity	1	mg/L	4	1	1	6	6	4.2
Carbon Dioxide	1.25	mg/L	ND	2.5	3.75	6.25	ND	1.25
Dissolved Oxygen	1	mg/L	6.1	5.82	5.74	6.08	MISSING	
Redox Potential		mg/L	155	147	153	155	91	144
Specific Conductance	1.08	mg/L	212	269	260	187	53	190
Total Alkalinity- Titration	1	mg/L	4	1	1	6	6	4.2
pH		mg/L	6.31	6.16	6.15	6.58	8.00	6.64
Chemical Oxygen Demand	10	mg/L	ND	ND	ND	ND	ND	ND
Total Organic Carbon	1	mg/L	2.3	ND	1	2.1	ND	1.3
Sulfide	0.03	mg/L	ND	ND	ND	ND	0.05	0.06

A comparison of the analytical results obtained from testing the two simulated percolate water clearly shows significant differences. Table 6.8 is a comparison table for specific constituents that are significantly impacted depending upon the percolate simulation protocol employed.

Table 6.8 – TCLP and ASTM Leaching Test Results Comparison

COMPARISON OF TCLP VS ASTM FOR SELECT PARAMETERS

TCLP

ASTM Leachate- using DI

Parameters	SS-1		SS-2		DUP	
Sodium	2.76	1,182	9.6	1,114	14	1,072
Bicarbonate, Alkalinity	4	170	1	165	1	130
Carbon Dioxide	ND	ND	2.5	ND	3.75	ND
Total Alkalinity- Titration	4	170	1	165	1	130
Chemical Oxygen Demand	ND	5,440	ND	5,630	ND	5,450
Total Organic Carbon	2.3	1,894	ND	1,943	1	1,947
Sulfide	ND	ND	ND	ND	ND	ND
	SS-3		SS-4		SS-5	
Sodium	2.95	1,184	7.6	1,180	7.61	1,143
Bicarbonate, Alkalinity	6	170	6	891	4.2	840
Carbon Dioxide	6.25	6	ND	ND	1.25	1
Total Alkalinity- Titration	6	170	6	891	4.2	840
Chemical Oxygen Demand	ND	5,240	ND	5,570	ND	5,540
Total Organic Carbon	2.1	1,896	ND	1,939	1.3	1,932
Sulfide	ND	ND	0.05	ND	0.06	ND

As is evident from the comparative table, the TCLP percolate data represents a very aggressive leaching protocol. The Sodium concentration in the simulated percolate produced using the TCLP procedure is approximately 500 times greater than that in the percolate produced using the DI procedure. The chemical oxygen demand and total organic carbon concentrations in the percolate produced using the TCLP leaching procedure show similar order of magnitude differences from the concentrations found in the percolate produced using the DI leaching procedure. From this, one can conclude that the simulated leachate produced using the TCLP procedure represents a “worst case” scenario of leaching that may result if dredged material were placed in the Stancill quarry.

7.0 Modeling Efforts

MES provided URS Corporation with copies of all information and data collected during the field investigation of the Stancill site at Furnace Bay. URS Corporation then utilized this information in developing a groundwater model of the site. URS Corporation developed a conceptual geologic model of the site and a conceptual hydrogeologic model of the site. These models were then used to develop a three-dimensional MODFLOW groundwater model of the site. Once the groundwater flow model was developed and calibrated, URS Corporation developed a MT3D transport model to predict potential groundwater changes for three indicator parameters that may occur if dredged material were used to fill the Stancill quarry.

7.1 Conceptual Geologic Interpretation

In April 2002, URS Corporation submitted a report entitled "Conceptual Geologic Interpretation of the Stancill Quarry Site, Cecil County, Maryland." The report is based upon geologic information available in the literature for the Cecil County area as well as site-specific information gathered during the current and past studies of the site.

The report shows the Stancill site to be located southeast of the fall line, the boundary between the Atlantic Coastal Plain Physiographic Province and the Appalachian Piedmont Province. The Fall Line, which is located approximately one-half mile north and west of the site, trends in a northeast-southwest direction.

The site is located within the Atlantic Coastal Plain Physiographic Province and is an active surface mine, producing sand, gravels, clays and other materials. The top of the saprolite, which is the weathered in place surface of the basement rock in the area, slopes towards the south and east. The local bedrock dip direction is to the south-southeast, with a gradient of approximately 100 feet per mile.

Three geologic units in the area of the site were mapped based upon their age and physical properties. These units are as follows:

- Post-Cretaceous stream-laid deposits;
- Cretaceous Age non-marine sediments; and
- Paleozoic Age crystalline rock residuum (saprolite), which overlies the crystalline basement rock complex.

Boring information show the thickness of the sediments beneath the site range up to 150 feet. These sediments consist of interbedded layers of silt, sand, gravels and clay. Test data show the Cretaceous and post-Cretaceous sediments to exhibit low permeability. However, due to their variability, both horizontally as well as vertically, these deposits cannot be correlated over even short distances over the site. This variance is the result of the meandering nature of the streams, including the downcutting that occurs during periods of marine regression.

URS Corporation concluded that poorly consolidated Quaternary/Tertiary fluvial deposits originally mantled the site. These post-Cretaceous deposits have been substantially removed over the years as a result of mining operations. The site appears to be uniformly underlain by a low permeability saprolite, the weathered residuum of the crystalline bedrock, which separates the surficial deposits from the underlying bedrock. The saprolite is the residue left in place after the more soluble iron and manganese-rich minerals of the metamorphic rocks have been altered to clay minerals by the physical and chemical processes of weathering. The weathering process converts the more soluble materials into clay minerals and the saprolite forms a tough, dense silty-clayey zone of low permeability over the crystalline basement rock complex.

The crystalline basement complex bedrock consists of metamorphosed volcanic rocks, chiefly interlayered quartz amphibolite and gneiss. This bedrock complex is the principal domestic water source in the vicinity of the quarry. The Cretaceous deposits, between the Quaternary/Tertiary deposits and the saprolite were not encountered in all boreholes on the site. This suggests that the Cretaceous sediments were deeply eroded by marine regression that occurred in this area during Tertiary/Quaternary time.

Water within the bedrock is found in pores, partings and fractures. These openings are of two types: primary, which form at the same time as the rock; and secondary, which form as the result of dynamic earth forces. Primary openings in the crystalline rocks in the Piedmont are generally less than 1 percent of the total volume and have little effect on the storage and movement of water. Secondary porosity, represented by fractures, joints, faults and other openings formed by physical weathering, are the main sources of water to wells in the vicinity of the quarry site. Typical well yields from wells installed in this crystalline rock average 11 gallons per minute (gpm).

A copy of the conceptual geologic interpretation report is found in Appendix B of this report.

7.2 Conceptual Hydrogeologic Interpretation

URS Corporation submitted a report entitled "Conceptual Hydrogeologic Interpretation of the Stancill Quarry Site, Cecil County, Maryland" dated May 2002. The conceptual hydrogeologic interpretation is based upon an assumed filling of the Stancill site to a height of + 90 feet. URS Corporation states that this site configuration is assumed to be a "worst case" scenario for groundwater modeling purposes. The model also assumes that the dredged material that would be placed in the quarry would likely consist of finer grained materials, such as fine sands, silts and clays, with occasional coarser grained materials. This assumption is consistent with materials typically encountered during maintenance dredging projects.

Geologic information on the area shows the site to be within ½ mile of the nearest exposure of crystalline basement rocks along Principio Creek. Therefore, the site shares aspects of both the Piedmont and Coastal Plain. URS Corporation identified the Cretaceous deposits found at the site and indicates that the deposits appear to correspond to the Potomac Group. Further, URS Corporation finds that the lithologic character of the deposits found at the Stancill site correspond to the middle Potomac confining unit, which consists predominantly of silt and clay.

Water level data collected over the period of the study were used to develop groundwater contours of the area. These water level contours consistently show that groundwater flow is inward towards the quarry from all directions toward the lowest elevation pond located within the boundaries of the quarry. However, during the initial site assessment performed in 2000, water levels recorded from temporary wells installed within the quarry showed a groundwater gradient to the south, spreading laterally as it moves in a southern direction. Data obtained from well E-6, which was installed in the southwestern portion of the quarry, suggests the possibility of leakage of groundwater from the quarry at that point.

Recharge to the quarry includes precipitation that falls directly onto the site as well as groundwater that flows in a radial pattern into the quarry. Discharges from the quarry consist of natural evaporation, water that is consumed in the processing of the earthen materials excavated from the quarry and marketed, and possible leakage from the bermed settling ponds, which are located at the higher elevations within the quarry.

The materials found at the Stancill site from bottom to top consist of the following:

- Crystalline igneous and metamorphic rocks of great but unknown thickness;
- Saprolite material, the residuum of the crystalline rock that has weathered in place;
- Non-marine sediments of early Cretaceous age of the Potomac Group; and
- Unconsolidated non-marine deposits overlying the Potomac Group believed to be of Tertiary/Quaternary age.

The hydraulic conductivity of these upper layer units ranges from 10^{-4} to 10^{-6} cm/sec. The average value that was determined from slug testing nine piezometers PZ-1 through PZ-9 is 3.6×10^{-3} cm/sec.

Specific conductance measured in PZ-1 through PZ-9 on November 6, 2001 indicate that the specific conductance of the quarry groundwaters were slightly lower than the specific conductance of the crystalline rock aquifers of Cecil County, but slightly higher than specific conductance measured in Potomac Group aquifers in the County. The range of pH in the nine boreholes, as measured in the field on November 6, 2001, and listed in Table 6.3, were found to be comparable to those cited in the literature. The laboratory results for 32 constituents obtained from tests of the groundwater were found to be generally within the range of sample results obtained from crystalline rock aquifers. The iron content of water collected from borehole PZ-1 was reported to be 120 mg/l, which is nearly five times higher than the highest iron value reported for Cecil County, which is 24 mg/l. The highest manganese concentration, 4.2 mg/l, was found in borehole PZ-5, which can be compared to approximately 2 mg/l reported for Cecil County.

The physical boundaries developed for the model consist of natural drainage basins that enclose the Stancill site. Approximately three quarters of the site is surrounded by creeks and tidal embayments that provide local recharge or receive water from the surficial aquifer.

A copy of the conceptual hydrogeologic interpretation report is found in Appendix C of this report.

7.3 MODFLOW Groundwater Flow Model

In July, 2002, URS Corporation submitted a report entitled “MODFLOW Flow Model Report of the Stancill Quarry Site, Cecil County, Maryland.” The report describes development of the model to simulate groundwater and the capture of groundwater constituents at the Stancill site. The computer programs MODFLOW, which is a finite difference numerical groundwater flow modeling code, and MODPATH, which is a particle-tracking package that is used in conjunction with MODFLOW, were used to develop the groundwater model of the Stancill site.

Due to insufficient site-specific information, URS Corporation was unable to develop a comprehensive water budget for the site. Therefore, the water budget used for model input is based upon studies that were conducted at Aberdeen Proving Ground, which is located 10 miles southwest of the quarry. The Aberdeen site budget includes precipitation information, evapotranspiration, and infiltration to underlying aquifers. Table 7.1 summarizes the input parameters were used in the MODFLOW model:

The site-specific groundwater model also requires delineation of specific site boundaries for inclusion in the model. Water in the form of creeks and tidal embayments that constitute natural drainage basins surround approximately 75% of the site.

Table 7.1 – Summary of Model Input Parameters

Model Input Parameter	Measured or Selected Value
Average annual precipitation	45 inches per year (1969 – 1990); 48 to 49 inches per year 1989 to 1990
Total evapotranspiration rate	25 to 28 inches per year
Average annual recharge to the aquifers	12 to 13 inches per year
Pond evaporation rate	33.14 inches per year
Permeability in the saprolite	1×10^{-4} cm/sec to 1×10^{-6} cm/sec
Potomac Group permeability	1.1×10^{-6} cm/sec to 5.6×10^{-6} cm/sec
Surficial soil hydraulic conductivity	8.85×10^{-3} cm/sec to 9.50×10^{-6} cm/sec, average hydraulic conductivity 3.57×10^{-3} cm/sec

Because the Stancill quarry is surrounded by identified topographic features and configurations, URS Corporation selected the following physical boundaries to be used in the groundwater model:

- The northern boundary of the model is located slightly north of the quarry, and is composed of Long Pond and its associated stream channels extending east and west of the pond.

- The western and southwestern boundaries in the model consist of the tidal portions of Principio Creek and Furnace Bay.
- The southern boundary of the model is the drainage basin divide that is located immediately south of the site.
- The eastern boundary of the model is the drainage basin divide located east of Mountain Hill Road.

The model boundaries encompass an area that is nearly rectangular, with dimensions approximately 3,450 feet wide by 2,800 feet long. The model assumes that once the quarry is filled with dredged materials, any discharges from the site will be to the surface waters that surround approximately two thirds of the Stancill site. The water table surface of the surficial aquifer is the upper boundary of the MODFLOW model. The base of the model is located approximately 150 feet into the bedrock, within the crystalline rock complex that underlies the unconsolidated materials of the surficial aquifer and saprolite.

The finite difference grid for the model consists of 73 rows and 71 columns at the longest and widest regions of the model area. Because the available data is distributed throughout the area being modeled, model grids were evenly spaced at 40 feet by 40 feet throughout the model area.

The groundwater model of the Stancill site consists of four layers. The top two layers of the model are located in the sedimentary units. Layer 1 initially, is mostly within the Quaternary Age deposits to calibrate the model to present day conditions. After calibration of the model, layer 1 includes the dredged material that was assumed to have been placed in the quarry. The dredged material was added to layer 1 after the model was calibrated to simulate current conditions. Layer 2 is mostly within the Cretaceous Age deposits beneath the site. Layer 3 is mostly within the saprolite zone, and layer 4 is mostly within the crystalline bedrock. To increase model efficiency, contacts between the model layers as identified above do not precisely follow the layers identified in the conceptual geologic and hydrogeologic interpretations as developed by URS Corporation. URS states that since hydraulic conductivity and other model parameters can be changed for individual cells in the model area, model areas that are approximate to the mapped geologic layers should not significantly influence the results produced by the model.

General head boundary conditions were used to represent the model boundaries with the coastal water bodies, while the river reaches were modeled using the MODFLOW river package. The model was calibrated using vertical and horizontal hydraulic conductivity values that are typical for coastal plain deposits. The maximum value for hydraulic conductivity that was used in the model of the Stancill site is 25 feet per day, which is characteristic of a clean sand material.

Sensitivity analysis was performed during model calibration. This analysis shows that the most sensitive parameter used in the model is the change in horizontal conductivity in layer 1.

URS concludes that given the data available, the model provides a consistent regional representation of the overall flow in the Stancill quarry. Further, URS concludes that it can be deduced from the MODPATH simulations that Furnace Bay would receive constituents that may become mobilized from dredged materials that are placed within the quarry.

MES examined the input parameters to the model and the assumptions that were employed by URS Corporation for the Stancill site and finds them to be reasonable. These input parameter values and assumptions are supported either by data from site specific testing, or were selected from published literature for similar materials or conditions. Based upon the assessment of the input information and assumptions, MES concludes that the model results constitute a reasonable representation of the overall groundwater flow in the Stancill quarry site that currently exists as well as the conditions that may develop after placement of dredged material in the site.

A copy of the MODFLOW Groundwater Flow Model report is included as Appendix D to this report.

7.4 MT3D Transport Model

In July 2002, URS Corporation submitted a report entitled "MT3D Transport Model Report of the Stancill Quarry Site, Cecil County, Maryland." The report details the groundwater chemical fate and transport modeling of specific indicator parameters that may be affected in the groundwater beneath the site as a result of placement of dredged material in the quarry. URS Corporation employed the model to predict the transport of chloride, Total Dissolved Solids (TDS) and iron in the groundwater. The objective of the modeling effort is to identify the potential impacts, if any that would result from the placement of dredged material in the site.

The conceptual hydrogeologic model and field investigations indicate that under current mined conditions, the groundwater at the site flows into the quarry from all sides, with the possibility for some leakage from the elevated spoil ponds. Further, the groundwater flow model anticipates that after the site is filled with dredged material, groundwater flow will be in a westerly direction towards the nearest surface water discharge point, Furnace Bay.

URS Corporation selected chloride, TDS and iron as being typical of dissolved constituents that may be mobilized from dredged material placed at the site. Once mobilized, these constituents have a high probability of entering groundwater as a constituent of the percolate, which passes through the sediments and underlying materials. Since the dredged material would be placed over the entire quarry, the constituents would be expected to be evenly distributed throughout the quarry.

Because site specific data shows varying aquifer hydraulic properties, and the vertical/horizontal extent of the placed constituents, URS determined that a three dimensional groundwater model was needed to simulate site-specific transport and to evaluate the flow of constituents in groundwater beneath the Stancill quarry. URS selected a Modular Three-Dimensional Multispecies Transport Model (MT3DMS) model for the project.

Data sources used by URS Corporation in the modeling effort included the following:

- Field and laboratory data collected from the Chesapeake Bay for prior year's Upper Bay dredging projects;
- Site maps and background site information collected during the study effort;
- Sediment test results from material collected at the Courthouse Point dredged material containment facility; and

- Leachate test results performed on material collected from the Courthouse Point site to simulate percolate water passing through dredged material.

URS Corporation initiated a solute-transport model using the calibrated MODFLOW groundwater flow model that was constructed to simulate groundwater conditions that would develop after dredged material was placed in the site. URS Corporation employed model input parameters that would provide a worst-case scenario of the potential transport of the selected parameters within the aquifers beneath the site. Only dissolved phases of chloride, TDS and iron were modeled. The models that were developed were constructed to simulate the primary transport processes, which are advection and hydrodynamic dispersion. Other transport processes, including adsorption, speciation and dissolution/precipitation were not simulated.

URS elected to use the simulated percolate concentration values that were derived from the TCLP testing of the sediment samples collected from the Courthouse Point site. Due to the aggressive nature of the leaching procedure, which includes the use of buffered acetic acid as the leaching media, the resulting constituent concentrations found in the percolate would be expected to be higher than the results derived when deionized water is used as the leaching media. Thus, considering the aggressive leaching procedure used, and the exclusion of adsorption, speciation and dissolution/precipitation effects, the model results would be expected to represent a very conservative assessment of groundwater conditions that may develop as a result of placement of dredged material in the site.

Table 7.2 below is a summary of the MT3DMS Model input parameters. The table includes a description of the parameter, the value or range of values that are available and the selected value. The table also describes the source from which the data was derived.

The origination of the model source inputs was assumed to be at a point in time 34 years in the future, when the quarry would be full of dredged material, assuming uniform placement at approximately 400,000 CY per year. In reality, groundwater influences can be expected to commence concomitant with placement of dredged material. The rate of change in groundwater quality would be expected to change as the amount of dredged material placed in the quarry increases. To be conservative, the initial and continuing input source concentration used in the model was the maximum concentration that was observed for that constituent in the simulated percolate. This fixed input concentration was then used to evaluate the constituent flow pattern and potential for off-site migration. The three constituents, chloride, TDS and Iron were modeled for their dissolved phases only in the saturated zone, using the primary transport mechanisms of advection and hydrodynamic dispersion.

The MT3DMS groundwater model incorporates the following basic general assumptions common to such models:

- A porous-media model can approximate the flow patterns in the surficial aquifer, saprolite and bedrock;
- All contaminants are in a dissolved form;
- Density effects are ignored;
- Uniform anisotropy is assumed;
- Dissolved contaminants do not hinder advective groundwater movement;
- Recharge and constituent source input are constant through time; and

- Leachate test results provide conservative estimates of future percolate concentrations.

Table 7.2 - MT3DMS Model Input Parameters

Parameter	Value or Range	Value Selected	Units	Primary Source
Model input Concentration: Chloride TDS Iron	LT 0.39 – 24.8 4,204 – 4,441 LT 0.5 to 0.66	24.8 4,441 0.66	Mg/l (All species)	Leachate tests of sediment samples (all species)
Effective Porosity – Unconfined	0.10 to 0.15	0.15		Literature values
Effective Porosity – Confined	0.00005 to 0.005	0.0002		Literature values
Longitudinal Dispersivity (Ld)	20 to less than 200	30	Feet	Literature values
Transverse Dispersivity	1% to 10% of Ld	3	Feet	Literature values
Vertical Dispersivity	1% to 10% of Ld	0.3	Feet	Literature values
Diffusion Coefficient Iron	$1.72e^{-4}$ to $2.0e^{-4}$	0	Sq. ft/day	Literature values Considered negligible
Coefficient of Retardation		0		Assumes no retardation
Adsorption Coefficient		0		Assumes no adsorption
Degradation rate – Dissolved		0		Assumes no decay because Constituents are inorganic

Model calibration is intended to provide reasonable estimates for uncertain model input data such that model predictions match observed data to the degree possible, given site conditions and the distribution of site chemical data. Initial Dispersivity is typically estimated based upon the shape of the contaminant plume. Since no material has been placed in the quarry, there is no current plume of contaminants, and the source area will include the entire quarry area. In addition, site-specific data on confined and unconfined aquifer effective porosity. Therefore, appropriate values were selected from published literature.

Dispersivity and effective porosity values were modified on an iterative manner in order to produce simulated plumes of a reasonable shape, given the characteristics of the site. The model was considered to be calibrated when the shape and concentrations of the simulated chloride, TDS and Iron distributions approximated those assumed using “best engineering judgment.”

The calibrated transport model was then used to predict future constituent concentrations based upon the worst-case scenario. For each of the transport model runs, the model solution behavior was checked for the following:

- Convergence of flow and transport solutions;
- Stability; and
- Mass balance.

The flow and transport model runs were converged to less than 5% mass error, in general. URS Corporation states that these solution errors have a negligible influence on the predicted results because of the uncertainties in the model input data.

Model sensitivity analysis was conducted by varying the dispersivity and effective porosity values and evaluating the impacts of these changes on model results. The results of the sensitivity analysis showed that the equilibrium concentrations of the modeled constituents measured at a downgradient location are most sensitive to changes in dispersivity. A change by a factor of 3.3 in dispersivity results in a 14 percent increase in the constituent equilibrium concentration for chloride at the downgradient observation point.

The simulation results for the three constituents modeled are presented in Table 7.3. The observation point for the model results is located at the southwest boundary of the property, adjacent to Principio Creek where it enters Furnace Bay. The maximum concentration of the predicted constituents in the groundwater is found in Layer 2, which is within the Cretaceous Age sedimentary deposits beneath the site. The model results predict that the concentration of TDS in the groundwater within Layer 2 after placement of dredged material would increase over time from a range of 100 to 500 mg/l to a maximum of 3,700 mg/l within the site boundaries. Chloride levels would rise from approximately 7 mg/l to 20.6 mg/l within the site boundaries, and Iron would increase from approximately 0.2 mg/l to .55 mg/l.

The model predicts that these steady-state maximum concentrations in the groundwater would be experienced within 8 to 10 years after placement of the dredged material. URS Corporation reiterates the fact that the aggressive nature of the TCLP procedure results in input constituent concentrations that overestimate the concentrations that will likely be leached from the dredged material. Further, because the model does not consider adsorption and chemical precipitation of Iron and TDS as groundwater passes through the soil media, the model results are conservative. The actual concentrations of constituents in the groundwater would be expected to be lower than those predicted under the worst-case scenario produced by the model.

Secondary Maximum Contaminant Level (SMCL) guideline concentrations for various constituents have been established under the provisions of the Safe Drinking Water Act. The SMCL guidelines apply to constituents that affect the aesthetic qualities of drinking water, such as taste, color or odor. Drinking water with constituents at levels above the SMCL may not be pleasant to drink but are not recognized as causing health problems. The SMCL for TDS is currently 500 mg/l. Therefore, all of the predicted values for TDS exceed the current guideline. The current SMCL for chloride is 250 mg/l. None of the predicted values for chloride approach this limit. The SMCL for iron is currently 0.3 mg/l. URS Corporation reports that the average background concentration of dissolved iron in groundwater in the general area is 17 mg/l. Therefore, a predicted increase in the iron concentration of 0.55 mg/l in

groundwater would not be considered to be a significant impact. The only significant impact to groundwater that was observed by the various model runs is the predicted increase in the concentration of TDS.

Table 7.3 - Model Results Summary

Modeled Constituent	Input Concentration	Predicted Concentration			
		Layer 1	Layer 2	Layer 3	Layer 4
Chloride	24.8 mg/l	15.9 mg/l	20.6 mg/l	15.9 mg/l	7.5 mg/l
TDS	4,441 mg/l	2,820 mg/l	3,700 mg/l	2,720 mg/l	1,380 mg/l
Iron	0.66 mg/l	0.42 mg/l	0.55 mg/l	0.41 mg/l	0.21 mg/l

As a general rule, because of the potential for groundwater impacts resulting from surface activities, the surficial groundwater aquifer is not available for installation of potable wells. Potable wells in the area are typically sited in the deeper, protected bedrock formations. In addition, the site is located immediately proximate to an estuarine body of water. The model predicts that after the site is filled, the groundwater flow will be in the direction of Principio Creek and Furnace Bay, and that the constituents in the groundwater will enter those water bodies. No potable wells, with the exception of the production well on the Stancill site, which is used for sanitary purposes on the property, are located within the predicted impact area. The model does not predict any upgradient migration of groundwater from the site. Therefore, there is low probability of any impact to potable wells from the placement of dredged material at the site.

A copy of the MT3D Transport Model Report is included as Appendix E to this report.

8.0 Findings and Conclusions

Based upon the results of the current site assessment of the Furnace Bay property, and the groundwater flow and transport modeling effort, MES concludes the following:

- Groundwater in the vicinity of the property, under the current excavated site conditions, flows in a radial manner into the quarry site.
- Upon filling of the site with dredged material, the direction of groundwater flow in the area will change, with groundwater flowing west, in the direction of Principio Creek and Furnace Bay.
- No upgradient movement of groundwater is predicted to occur under the re-established groundwater flow regime that will develop once the site is filled with dredged material.
- With the exception of the existing production well on the site, which is used for on-site office and shop activities, no potable wells currently exist in the downgradient area between the Stancill site and Principio Creek / Furnace Bay.
- Because of the location of the site immediately proximate to Principio Creek and Furnace Bay, there is little or no probability that a potable well would be sited in the future within the downgradient area between the site and Principio Creek / Furnace Bay.
- Based upon the current site topography, the Stancill site presently offers an air space capacity of 7.4 MCY if filled to an elevation of +90, or up to 10.4 MCY of air space capacity using dewatered dredged material placed, compacted and contoured over the site with 3:H : 1V side slopes and benches, constructed to a maximum elevation of +158 above MSL.
- Groundwater quality impacts in would be experienced if dredged material were placed in the site. Groundwater modeling results indicate that TDS levels in groundwater at the site are predicted to rise to a maximum expected concentration of 3,700 mg/l; chloride levels in the groundwater are predicted to rise to an expected maximum concentration of 20.6 mg/l; and Iron concentrations in groundwater are predicted to increase to an expected maximum concentration of 0.55 mg/l.
- The predicted maximum concentration of 3,700 mg/l for TDS exceeds the current SMCL guideline of 500 mg/l.
- The predicted maximum concentration of 0.55 mg/l for Iron in groundwater exceeds the current SMCL guidelines of 0.3 mg/l, but the increase is insignificant when compared to the current average concentration of Iron in groundwater in the area, which is 17 mg/l.
- The predicted maximum concentration of 20.6 mg/l for chloride in groundwater does not exceed the current SMCL guidelines of 250 mg/l.
- After placement of dredged material in the Furnace Bay site to a level above the elevation of groundwater in the area, any constituents leached from the dredged material that enters the

groundwater will flow in the direction of and express themselves in Principio Creek and Furnace Bay.

- With the exception of the existing production well on the site, no existing upgradient or downgradient potable wells were identified that would potentially be affected by placement of dredged material in the Stancill site.
- The predicted values were obtained from the groundwater model when conservative water quality input data based upon TCLP percolate data were used as input data. Actual groundwater concentrations are expected to be less than the predicted values.
- The predicted water quality impacts to the groundwater are expected to manifest themselves within 10-years of placement of dredged material in the site.

Based upon the results of the current site assessment of the Furnace Bay property, and the groundwater flow and transport modeling effort, prospective effects to groundwater from placement of dredged material at the Stancill's Inc. site at Furnace Bay would not result in predicted conditions that would preclude the site's further consideration as a potential upland placement site for management of dredged material.

APPENDIX A

A-1 Well Completion Reports

A-2 Water Level Readings

A-3 Permeability Tests

A-4 Well Inventory

A-5 Lab Analyses

A-1 WELL COMPLETION REPORTS

C1 03942 (MDE USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

45 DAYS AFTER WELL IS COMPLETED.

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)COUNTY Test PZ-1 Stancills I
NUMBER

ST/CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

DATE RECEIVED

CE 94 4933

MM DO YY

10 22 01

22 25 26
(TO NEAREST FOOT)

28 29 30 31 32 33 34 35 36 37

OWNER

STANCILLS INC

STREET OR RFD

499 Mountain Hill Rd

TOWN PERRYVILLE, MD 21903

SUBDIVISION

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

check
if water
bearingbrown, silty
sand with trace
of gravel

0 16

brown sandy
clay

15 25

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)yes no
Y N

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT C M

BENTONITE CLAY B C

NO. OF BAGS 4 NO. OF POUNDS 400

GALLONS OF WATER 24

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 13 ft.
(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
below

ST

STEEL

CO

CONCRETE

PL

PLASTIC

OT

OTHER

MAIN
CASING
TYPE

PL

Nominal diameter
top (main) casing
(nearest inch)

2

Total depth
of main casing
(nearest foot)

15

E
A
C
H
C
A
S
I
N
G

OTHER CASING (if used)

diameter

depth (feet)

inch

from to

screen type
or open hole

SCREEN RECORD

(insert
appropriate
code
below)

ST

STEEL

BR

BRASS

BRONZE

PL

PLASTIC

HO

OPEN

HOLE

OT

OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0000

WELL HYDROFRACTURED

yes
Yno
N

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND
IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE
CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED
HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY
KNOWLEDGE.

DRILLERS LIC. NO. 1

ME D 047

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1

D

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)GRAVEL PACK
IF WELL DRILLED
WAS FLOWING WELL
INSERT F IN BOX 68

MDE USE ONLY

(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

W O

70

72

74 75 76

TELESCOPE

LOG

OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour)

8 9

PUMPING RATE (gal. per min.)

11 15

METHOD USED TO
MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING

17 20 ft.

WHEN PUMPING

22 25 ft.

TYPE OF PUMP USED (for test)

A air

P piston

T turbine

C centrifugal

R rotary

O other
(describe
below)

J jet

S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS.TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O)
IN BOX 29CAPACITY:
GALLONS PER MINUTE
(to nearest gallon)

31 35

PUMP HORSE POWER

37 41

PUMP COLUMN LENGTH
(nearest ft.)

43 47

CASING HEIGHT (circle appropriate box
and enter casing height)

+ above

LAND SURFACE

- below

2.5' (nearest
foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND /OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

ACCESS RD

⊕ 80' → NW
H:11
RD

SEQUENCE NO. (MDE USE ONLY)		STATE OF MARYLAND PERMIT TO DRILL WELL please print or type		STATE PERMIT NUMBER CE - 94 - 4933 fill in this form completely	
Date Received (APA) 8 MM DO YY 13		LOCATION OF WELL			
OWNER INFORMATION		B 3			
15 Last Name Owner First Name 34		8 COUNTY 21 PZ-1			
36 Street or RFD 55		23 SUBDIVISION 42			
57 Town 70 State 72 Zip 76		SECTION 44 46 LOT 48 50			
DRILLER INFORMATION		52 NEAREST TOWN 71			
Driller's Name 76 License No. 81		MILES FROM TOWN (enter 0 if in town) 73 76 77 78			
Firm Name		B 4			
Address		1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)			
Signature Date		ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)			
WELL INFORMATION		TAX MAP: 35 BLK: 2 PARCEL: 121			
APPROX. PUMPING RATE (GAL. PER MIN.) 8 12		Cecil COUNTY NO. 41			
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20		DATE ISSUED 10-17-01			
USE FOR WATER (CIRCLE APPROPRIATE BOX)		CO SIGNATURE EXP. DATE			
<input type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION		NORTH GRID 34 000 EAST GRID 10.75 000			
<input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)		SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X			
<input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING		SOURCES OF DRILLING WATER			
<input type="checkbox"/> PUBLIC WATER SUPPLY WELL		1. MUNICIPAL			
<input checked="" type="checkbox"/> TEST, OBSERVATION, MONITORING		2.			
<input type="checkbox"/> GEO-THERMAL		3.			
APPROXIMATE DEPTH OF WELL 40 FEET		WRITE THE BOX NUMBER FROM THE MAP HERE			
APPROXIMATE DIAMETER OF WELL 2 INCH		E 1070			
METHOD OF DRILLING (circle one)		N 630			
<input checked="" type="checkbox"/> BORED (or Augered) JETTED Jetted & DRIVEN		DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION			
30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)		Access Rd			
37 CABLE REVERSE-ROTary Drive-POINT		PZ-1			
other		N			
REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)					
<input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL					
<input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED					
<input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS					
<input type="checkbox"/> THIS WELL WILL DEEPEIN AN EXISTING WELL					
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 52					
Not to be filled in by driller (MDE OR COUNTY USE ONLY)					
APPROX. PERMIT NUMBER 54 GAP 63					
PERMIT No. CE - 94 - 4933					

C1 03943

SEQUENCE NO.
(MDE USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.1 2 3 6
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)COUNTY Test - PZ-2 Stancill
NUMBER

ST/CO USE ONLY

DATE Received
MM DD YY
8 13

DATE WELL COMPLETED

MM DD YY
10-23-01
15 20

Depth of Well

22 40 28
(TO NEAREST FOOT)PERMIT NO.
FROM "PERMIT TO DRILL WELL"
CE 94 4934
28 29 30 31 32 33 34 35 36 37

OWNER

Stancill Inc.

STREET OR RFD

799 Mountain Hill Rd

first name

TOWN

Perryville, MD 21903

SUBDIVISION

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
lt. brown sand and gravel	0	20	✓

lt. brown silty sand	20	40	✓
-------------------------	----	----	---

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)yes no
Y N
44 44

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 8 NO. OF POUNDS 800

GALLONS OF WATER 48

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 28 ft.
(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
belowST
STEELCO
CONCRETEPL
PLASTICOT
OTHERMAIN
CASING
TYPE

PL

Nominal diameter
top (main) casing
(nearest inch)

2

Total depth
of main casing
(nearest foot)

30

E
A
C
H
C
A
S
I
N
G

OTHER CASING (if used)

diameter depth (feet)
inch from toscreen type
or open hole
insert
appropriate
code
below

SCREEN RECORD

ST
STEELBR
BRASSHO
OPEN
HOLEPL
BRONZEOT
PLASTIC

OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED

yes
Yno
N

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND
IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE
CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED
HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY
KNOWLEDGE.

DRILLER'S LIC. NO.

MSD 047

DRILLER'S SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.

D

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)GRAVEL PACK
IF WELL DRILLED
WAS FLOWING WELL
INSERT F IN BOX 68

MDE USE ONLY

(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

W Q

70

72

74 75 76

TELESCOPE

LOG

PUMPING TEST

HOURS PUMPED (nearest hour)

8 9

PUMPING RATE (gal. per min.)

11 15

METHOD USED TO
MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING

17 20 ft.

WHEN PUMPING

22 25 ft.

TYPE OF PUMP USED (for test)

A air

P piston

T turbine

C centrifugal

R rotary

O other
(describe
below)

J jet

S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP
(CIRCLE) (YES or NO)

YES

NO

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)
IN BOX 29.CAPACITY:
GALLONS PER MINUTE
(to nearest gallon)

31 35

PUMP HORSE POWER

37 41

PUMP COLUMN LENGTH
(nearest ft.)

43 47

CASING HEIGHT (circle appropriate box
and enter casing height)

+ above

LAND SURFACE

- below

2.5' (nearest
foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND /OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

Access Rd

100'

200'

Mtn Hill Rd

D7-2

3017

SEQUENCE NO.
(MDE USE ONLY)STATE OF MARYLAND
PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER

CE- 94 - 4934
70 fill in this form completely 79

Date Received (APA)

OWNER INFORMATION

8 MM DO YY 13

15 Last Name Owner First Name 34

36 Street or RFD 55

57 Town 70 State 72 Zip 76

DRILLER INFORMATION

Driller's Name M. D. 747 76 License No. 81

Firm Name

Address

Signature Date 10-12-01

B 2 WELL INFORMATION
1 2 APPROX. PUMPING RATE (GAL. PER MIN.) 100 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☐ DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, DEWATERING
- ☐ PUBLIC WATER SUPPLY WELL
- ☐ TEST, OBSERVATION, MONITORING
- ☐ GEO-THERMAL

APPROXIMATE DEPTH OF WELL 40 FEET

APPROXIMATE DIAMETER OF WELL NEAREST INCH

METHOD OF DRILLING (circle one)

- ☒ BORED (or Augered) ☐ JETTED ☐ Jetted & DRIVEN
- ☐ AIR-ROTARY ☐ AIR-PERCussion ☐ ROTARY (Hydraulic Rotary)
- ☐ CABLE ☐ REVerse-ROTary ☐ DRive-POINT
- other

REPLACEMENT OR DEEPEINED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- ☐ THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER 54 63

PERMIT No. CE- 94- 4934
70 71 72 73 74 75 76 77 78 79

LOCATION OF WELL

B 3

8 COUNTY

PZ-2

23 SUBDIVISION 42

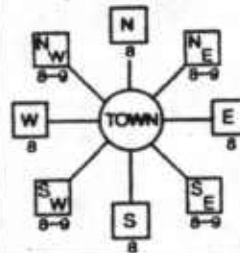
SECTION 44 46 LOT 48 50

52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 73 M I 76 77 78

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 200 37
DISTANCE FROM ROAD
ENTER FT OR MI 38 39

TAX MAP: 35 BLK: 2 PARCEL 1-1

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil COUNTY NO.

STATE SIGNATURE INSERT S 41

DATE ISSUED 10-17-01 10-16-02

43 MM DO YY 48 CO SIGNATURE
NORTH GRID 633 0.00 EAST GRID 1074 0.00
50 55 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. Municipal
- 2.
- 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 7

N 200

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N



C1 03944

SEQUENCE NO.
(MDE USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.COUNTY
NUMBER Test PZ-3 Stancills1 2 3 6
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY

DATE Received
MM DD YY
8 13

DATE WELL COMPLETED

10-22-07

Depth of Well

22 20 28
(TO NEAREST FOOT)PERMIT NO.
FROM "PERMIT TO DRILL WELL"
CE- 94- 4935

28 29 30 31 32 33 34 35 36 37

OWNER

STANCILLS INC.

first name

TOWN PERRYVILLE MD 21903

STREET OR RFD

499 MOUNTAIN HILL RD

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

FROM

TO

check
if water
bearinglt. brown silty
sand

0 20

✓

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)YES ☒ Y NO ☐ N
44 44

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT ☒ CM BENTONITE CLAY ☒ BC

NO. OF BAGS 45-48 2 NO. OF POUNDS 45-48 200

GALLONS OF WATER 12

DEPTH OF GROUT SEAL (to nearest foot)

from 48 TOP 52 ft. to 54 BOTTOM 58 ft.
(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
below☒ ST
STEEL☐ CO
CONCRETE☒ PL
PLASTIC☐ OT
OTHERMAIN
CASING
TYPE

PL

Nominal diameter
top (main) casing
(nearest inch)

2

Total depth
of main casing
(nearest foot)

10

E
A
C
H
C
A
S
I
N
G

OTHER CASING (if used)

diameter depth (feet)
inch from toscreen type
or open hole

SCREEN RECORD

☒ ST
STEEL☐ BR
BRASS☐ HO
OPEN
HOLE☐ PL
PLASTIC☐ OT
OTHER(insert
appropriate
code
below)

NUMBER OF UNSUCCESSFUL WELLS: DONE

WELL HYDROFRACTURED

YES ☒ YNO ☐ N

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND
IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE
CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED
HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY
KNOWLEDGE.

DRILLERS LIC. NO. 1

M6D047

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1

D

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)GRAVEL PACK
IF WELL DRILLED
WAS FLOWING WELL
INSERT F IN BOX 68MDE USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

W Q

70

TELESCOPE

72

LOG

74 75 76

OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour)

8 9

PUMPING RATE (gal. per min.)

11 15

METHOD USED TO

MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING

17 20 ft.

WHEN PUMPING

22 25 ft.

TYPE OF PUMP USED (for test)

☒ A air☐ P piston☐ T turbine☐ C centrifugal☐ R rotary☐ O other
(describe below)☐ J jet☐ S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP
(CIRCLE) (YES or NO)YES ☐ NO ☒IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)
IN BOX 29.

CAPACITY:

GALLONS PER MINUTE
(to nearest gallon)

31 32

PUMP HORSE POWER

37 4

PUMP COLUMN LENGTH
(nearest ft.)

43 4

CASING HEIGHT (circle appropriate box
and enter casing height)☒ + above

LAND SURFACE

☐ - below2.5' (nearest
foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND /OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

ACCESS Rd

80' ↑
⊗ 370' →
PZ-3

MTO Hill Rd

SEQUENCE NO.
(MDE USE ONLY)STATE OF MARYLAND
PERMIT TO DRILL WELL

STATE PERMIT NUMBER

CE- 94 - 4935

fill in this form completely

please print or type

Date Received (APA)

OWNER INFORMATION

8 MM DO YY 13

15 Last Name

Owner

First Name

34

36

Street or RFD

55

57 Town

70

State

72

Zip

76

DRILLER INFORMATION

Driller's Name

76

License No.

81

Firm Name

Address

Signature

Date

WELL INFORMATION

APPROX. PUMPING RATE
(GAL. PER MIN.)

8

12

AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY)

14

20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☐ DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, DEWATERING
- ☐ PUBLIC WATER SUPPLY WELL
- ☒ TEST, OBSERVATION, MONITORING
- ☐ GEO-THERMAL

APPROXIMATE DEPTH OF WELL 40 FEETAPPROXIMATE DIAMETER OF WELL 2 INCH

METHOD OF DRILLING (circle one)

☒ BORED (or Augered)☐ JETTED☐ Jetted & DRIVEN☒ AIR-ROTARY☐ AIR-PERCUSION☐ ROTARY (Hydraulic Rotary)☒ CABLE☐ REVERSE-ROTARY☐ DRIVE-POINT

other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- ☐ THIS WELL WILL DEEPEMED AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED
(IF AVAILABLE)

41

52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROX. PERMIT NUMBER

54

GAP

63

PERMIT No. CE- 94 - 4935

70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

LOCATION OF WELL

PZ-3

8 COUNTY

21

23 SUBDIVISION

42

SECTION

44

46

LOT

48

50

52 NEAREST TOWN

71

MILES FROM TOWN (enter 0 if in town)

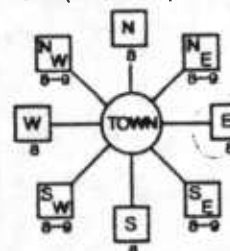
73

76

77

78

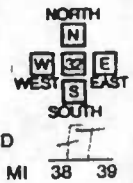
B 4

DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)

NEAR WHAT ROAD

11

30

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)DISTANCE FROM ROAD
ENTER FT OR MI

34

37

38

39

TAX MAP: 35 BLK: 2 PARCEL 121

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

COUNTY NO.

STATE

SIGNATURE

INSERT S

41

DATE ISSUED

10-17-01

10-16-02

43 MM DO YY 48

CO SIGNATURE

EXP. DATE

NORTH

GRID

50

55

EAST

GRID

57

63

SHOW MAJOR FEATURES OF
BOX & LOCATE WELL
WITH AN X

SOURCES OF DRILLING WATER

1. 1070
2. 630
3. 1070

WRITE THE BOX NUMBER
FROM THE MAP HERE

E

N

000
000DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

30'

PZ-3

370'

03945

SEQUENCE NO.
(MDE USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

Test PZ-4 Stancills

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

DATE RECEIVED

DATE WELL COMPLETED

DEPTH OF WELL

OWNER

STREET OR RFD

SUBDIVISION

SECTION

LOT

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use
additional sheets if needed)

FEET

check
if water
bearing

GROUTING RECORD

WELL HAS BEEN GROUTED

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT

BENTONITE CLAY

NO. OF BAGS

NO. OF POUNDS

GALLONS OF WATER

DEPTH OF GROUT SEAL (to nearest foot)

CASING RECORD

MAIN CASING TYPE

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

OTHER CASING (if used)

SCREEN RECORD

screen type or open hole

DEPTH (nearest ft.)

WELL HYDROFRACTURED

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

DRILLERS LIC. NO. 1

DRILLERS SIGNATURE

LIC. NO. 1

SITE SUPERVISOR (sign. of driller or journeyman)

PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min.)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (for test)

A air

P piston

T turbine

C centrifugal

R rotary

O other (describe below)

J jet

S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O) IN BOX 29.

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

above

below

LAND SURFACE

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

ACCESS Rd

Mtn. Hill Rd

B 1 3015
1 2 3 6SEQUENCE NO.
(MDE USE ONLY)STATE OF MARYLAND
PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER

CE - 94 - 4936

70 fill in this form completely 79

Date Received (APA)

8 MM DD YY 13

OWNER INFORMATION

15 Last Name Owner First Name 34

36 Street or RFD 55

57 Town 70 State 72 Zip 76

DRILLER INFORMATION

Driller's Name M D H T License No. 81

Firm Name

Address

Signature Date

B 2 WELL INFORMATION
1 2 APPROX. PUMPING RATE (GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☐ DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, DEWATERING
- ☐ PUBLIC WATER SUPPLY WELL
- ☐ TEST, OBSERVATION, MONITORING
- ☐ GEO-THERMAL

APPROXIMATE DEPTH OF WELL 40 FEET

APPROXIMATE DIAMETER OF WELL 8 INCH NEAREST

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTARY AIR-PERCUSION ROTARY (Hydraulic Rotary)

37 CABLE REVERSE-ROTARY DRIVE-POINT

other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- 39 ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- ☐ THIS WELL WILL DEEPEMED AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROX. PERMIT NUMBER 54 GAP 63

PERMIT No. CE - 94 - 4936
70 71 72 73 74 75 76 77 78 79

B 3 LOCATION OF WELL

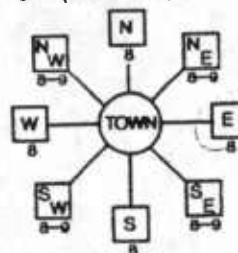
8 COUNTY 21 PZ-4

23 SUBDIVISION 42

SECTION 44 46 LOT 48 50

52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 73 76 77 78

B 4
1 2
DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



34 500 37 DISTANCE FROM ROAD

ENTER FT OR MI 38 39

TAX MAP: 35 BLK: 2 PARCEL 121

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S 41

DATE ISSUED 10-17-01 10-16-02

43 MM DD YY 48 CO SIGNATURE EXP. DATE

NORTH GRID 633 000 EAST GRID 1074 000

50 55 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. 115'
- 2.
- 3.

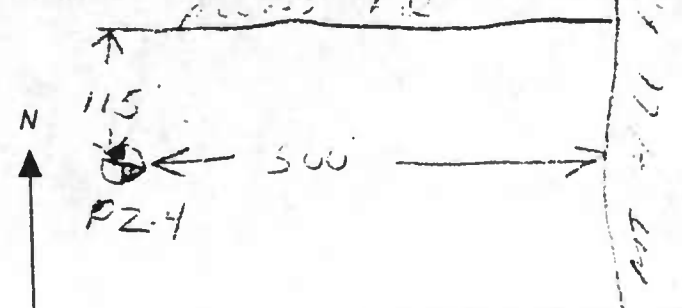
WRITE THE BOX NUMBER FROM THE MAP HERE

E 1170

N 630

000 000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C1 03946

SEQUENCE NO.
(MDE USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.COUNTY
NUMBER Test PZ-5 Stancills1 2 3 6
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY

DATE Received
MM DD YY

8 13

DATE WELL COMPLETED

MM DD YY
10-23-01

Depth of Well

22 20 26
(TO NEAREST FOOT)PERMIT NO.
FROM "PERMIT TO DRILL WELL"
CE 94 4937

28 29 30 31 32 33 34 35 36 37

OWNER

Stancills, Inc.

STREET OR RFD

499 Mountain Hill Rd

First name

TOWN PERRYVILLE MD 21903

SUBDIVISION

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

FROM TO

check
if water
bearinglt. brown silty
sand

0 20

✓

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)yes no
Y N
44 44

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 45 46 2 NO. OF POUNDS 49 48 200

GALLONS OF WATER 12

DEPTH OF GROUT SEAL (to nearest foot)

from 48 TOP 52 ft. to 54 BOTTOM 58 ft.
(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
belowST
STEELPL
PLASTICCO
CONCRETEOT
OTHERMAIN
CASING
TYPENominal diameter
top (main) casing
(nearest inch)Total depth
of main casing
(nearest foot)PL 2 10
60 61 63 64 65 70

OTHER CASING (if used)

diameter depth (feet)
inch from toE
A
C
H
C
A
S
I
N
Gscreen type
or open hole
(insert
appropriate
code
below)

SCREEN RECORD

ST
STEELBR
BRASSPL
PLASTICHO
OPEN
HOLEOT
OTHER

DEPTH (nearest ft.)

C 2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
SLOT SIZE 1 0.10 2 3
DIAMETER OF SCREEN 2 (NEAREST INCH)
from 8 to 20

NUMBER OF UNSUCCESSFUL WELLS: NONE

WELL HYDROFRACTURED

yes no
Y N

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND
IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE
CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED
HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY
KNOWLEDGE.

DRILLERS LIC. NO. 1 M ED 047

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 D

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)GRAVEL PACK
IF WELL DRILLED
WAS FLOWING WELL
INSERT F IN BOX 68MDE USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

W Q

70
TELESCOPE
CASING72
LOG
INDICATOR74 75 76
OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO
MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)

A air P piston T turbine
27 27 27
C centrifugal R rotary O other
27 27 27 (describe
below)
J jet S submersible
27 27

PUMP INSTALLED

DRILLER INSTALLED PUMP YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS.TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O)
IN BOX 29CAPACITY:
GALLONS PER MINUTE 31 35
(to nearest gallon)

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH
(nearest ft.) 43 47CASING HEIGHT (circle appropriate box
and enter casing height)+ above } LAND SURFACE
- below } 25 (nearest
49 50 51 foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND /OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

ACCESS Rd

200

150

PZ-5

SEQUENCE NO.
(MDE USE ONLY)STATE OF MARYLAND
PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER

CE- 94 - 4937

70 fill in this form completely 79

Date Received (APA)

OWNER INFORMATION

8 MM DO YY 13

15 Last Name

Owner

First Name

34

36 Street or RFD

55

57 Town

70 State

72 Zip

76

DRILLER INFORMATION

Driller's Name

M - D - 47
76 License No. 81

Firm Name

Address

Signature

Date

B 2
1 2

WELL INFORMATION

APPROX. PUMPING RATE
(GAL. PER MIN.)

8

12

AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY)

14

20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☐ DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, DEWATERING
- ☐ PUBLIC WATER SUPPLY WELL
- ☐ TEST, OBSERVATION, MONITORING
- ☐ GEO-THERMAL

APPROXIMATE DEPTH OF WELL 40 FEET

24

28

APPROXIMATE DIAMETER OF WELL

NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered)

JETTED

Jetted & DRIVEN

30 AIR-ROTary

AIR-PERCussion

ROTARY (Hydraulic Rotary)

37 CABLE

REVerse-ROTary

Drive-POINT

other

REPLACEMENT OR DEEPEINED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- ☐ THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED
(IF AVAILABLE) 41

52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER

54

G A P

63

PERMIT No. CE- 94- 4937

70 71 72 73 74 75 76 77 78 79

LOCATION OF WELL

8 COUNTY

21

PZ-5

23 SUBDIVISION

42

SECTION

44

46

LOT

48

50

52 NEAREST TOWN

71

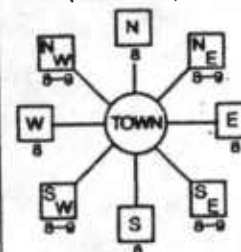
MILES FROM TOWN (enter 0 if in town)

73

76

77

78

B 4
1 2DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)

11 NEAR WHAT ROAD

30

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)34 150 37
DISTANCE FROM ROAD

ENTER FT OR MI 38 39

TAX MAP: 35 BLK: 2 PARCEL 121

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVALCecil
COUNTY NAME

COUNTY NO.

STATE
SIGNATURE

INSERT S → 41

DATE ISSUED

10-17-01

10-16-02

43 MM DO YY 48

CO SIGNATURE

EXP. DATE

NORTH

GRID

43.3

000

55

EAST

GRID

1074

000

63

SHOW MAJOR FEATURES OF
BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. 1074

2.

3.

WRITE THE BOX NUMBER
FROM THE MAP HERE

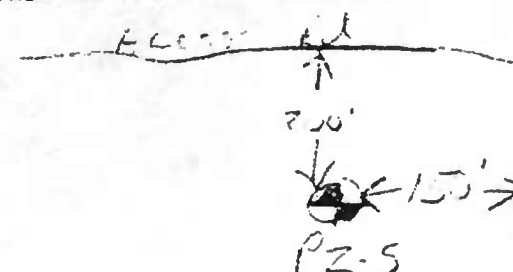
E

1074

N

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N



SPECIAL CONDITIONS

103947

SEQUENCE NO.
(MDE USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER Test PZ-6 Stancills

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
CE - 94 - 4938

DATE WELL COMPLETED
10-23-01

Depth of Well
22 20 26
(TO NEAREST FOOT)

OWNER
STANCILLS INC

STREET OR RFD
499 MOUNTAIN HILL RD

TOWN
PERRYVILLE MD 21903

SUBDIVISION

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
H. brown sandy sand	0	20	✓

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT ☒ BENTONITE CLAY ☒

NO. OF BAGS 45-48 2 NO. OF POUNDS 15-20 200

GALLONS OF WATER 12

DEPTH OF GROUT SEAL (to nearest foot)

from 48 TOP 52 ft. to 54 BOTTOM 58 ft.

(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
below

STEEL ☒ CONCRETE ☒

PLASTIC ☒ OTHER ☒

MAIN
CASING
TYPE
PL

Nominal diameter
top (main) casing
(nearest inch) 2

Total depth
of main casing
(nearest foot) 10

OTHER CASING (# used)

diameter depth (feet)

inch from to

SCREEN RECORD

screen type
or open hole

STEEL ☒ BRASS ☒ OPEN ☒

BRONZE ☒ HOLE ☒

PLASTIC ☒ OTHER ☒

DEPTH (nearest ft.)

10 20

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO
MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)

A air P piston T turbine

C centrifugal R rotary O other
(describe below)

J jet S submersible

NUMBER OF UNSUCCESSFUL WELLS: 0000

WELL HYDROFRACTURED

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND
IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE
CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED
HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY
KNOWLEDGE.

DRILLER'S LIC. NO. 1 M 5047

DRILLER'S SIGNATURE

LIC. NO. 1 D

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

DEPTH (nearest ft.)

10 20

SCREEN RECORD

STEEL ☒ BRASS ☒ OPEN ☒

BRONZE ☒ HOLE ☒

PLASTIC ☒ OTHER ☒

DIAMETER OF SCREEN 2 (NEAREST INCH)

from 8 to 20

GRAVEL PACK
IF WELL DRILLED
WAS FLOWING WELL
INSERT F IN BOX 68

MDE USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

70 72 74 75 76

TELESCOPE LOG INDICATING OTHER DATA

PUMP INSTALLED

DRILLER INSTALLED PUMP YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)

IN BOX 29

CAPACITY:
GALLONS PER MINUTE
(to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH
(nearest ft.) 43 47

CASING HEIGHT (circle appropriate box
and enter casing height)

+ above } LAND SURFACE

- below } 2.5 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND /OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

Access Rd

285

80

PZ-6

1 2 3 6	3021	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER CE- 94 - 4938 70 fill in this form completely 79
Date Received (APA)			B 3 LOCATION OF WELL	
OWNER INFORMATION			8 COUNTY 21 PZ-6	
8 MM DO YY 13			23 SUBDIVISION 42	
15 Last Name Owner First Name 34			SECTION 44 46 LOT 48 50	
36 Street or RFD 55			52 NEAREST TOWN 71	
57 Town 70 State 72 Zip 76			MILES FROM TOWN (enter 0 if in town) 73 M 76 77 78	
DRILLER INFORMATION			B 4	
Driller's Name 76 License No. 81			1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)	
Firm Name			11 NEAR WHAT ROAD 30	
Address			ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)	
Signature Date			34 80 37 DISTANCE FROM ROAD 38 39	
B 2 WELL INFORMATION			TAX MAP: 35 BLK: 2 PARCEL: 321	
APPROX. PUMPING RATE (GAL. PER MIN.) 8 12			NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL	
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20			Cecil COUNTY NAME COUNTY NO.	
USE FOR WATER (CIRCLE APPROPRIATE BOX)			STATE SIGNATURE INSERT S 41	
<input type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION			DATE ISSUED 10-17-01 10-16-02	
<input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)			43 MM DO YY 48 CO SIGNATURE EXP. DATE	
<input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING			NORTH GRID 633 000 EAST GRID 1075 000	
<input type="checkbox"/> PUBLIC WATER SUPPLY WELL			50 55 57 63	
<input type="checkbox"/> TEST, OBSERVATION, MONITORING			SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X	
<input type="checkbox"/> GEO-THERMAL			SOURCES OF DRILLING WATER	
APPROXIMATE DEPTH OF WELL 24 28 FEET			1. 1100	
APPROXIMATE DIAMETER OF WELL NEAREST INCH			2.	
METHOD OF DRILLING (circle one)			3.	
<input type="checkbox"/> BORED (or Augered) <input type="checkbox"/> JETTED <input type="checkbox"/> Jetted & DRIVEN			WRITE THE BOX NUMBER FROM THE MAP HERE	
<input type="checkbox"/> AIR-ROTary <input type="checkbox"/> AIR-PERCussion <input type="checkbox"/> ROTARY (Hydraulic Rotary)			E 1070	
<input type="checkbox"/> CABLE <input type="checkbox"/> REVERSE-ROTary <input type="checkbox"/> DRIVE-POINT			N 000	
other			DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION	
REPLACEMENT OR DEEPEPENED WELLS (CIRCLE APPROPRIATE BOX)			N	
<input type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL			Sketch showing location of well in relation to nearby towns and roads, with distance from well to nearest road junction.	
<input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED				
<input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS				
<input type="checkbox"/> THIS WELL WILL DEEPEEN AN EXISTING WELL				
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEPENED (IF AVAILABLE) 41 52				
Not to be filled in by driller (MDE OR COUNTY USE ONLY)				
APPROP. PERMIT NUMBER 54 63				
PERMIT No. CE - 94 - 4938				
70 71 72 73 74 75 76 77 78 79				
SPECIAL CONDITIONS				

1 03948 SEQUENCE NO. (MDE USE ONLY)

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

T/CO USE ONLY DATE Received MM DO YY

DATE WELL COMPLETED MM DO YY 10-24-01

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER Test PZ-7 Stancills

PERMIT NO. FROM "PERMIT TO DRILL WELL" CE- 94- 4939

OWNER STANCILLS INC last name first name TOWN PERRYVILLE MD 21903

STREET OR RFD 499 MOUNTAIN HILL RD SECTION LOT

SUBDIVISION

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
lt. brown silty sand	0	20	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y NO N

TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 45 46 2 NO. OF POUNDS 2500

GALLONS OF WATER 12

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 8 ft. (enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

STEEL ST CONCRETE CO PLASTIC PL OTHER OT

MAIN CASING TYPE PL

Nominal diameter top (main) casing (nearest inch) 2

Total depth of main casing (nearest foot) 10

OTHER CASING (if used) diameter inch depth (feet) from to

SCREEN RECORD

screen type or open hole (insert appropriate code below)

STEEL ST BRASS BR HOLE HO PLASTIC PL OTHER OT

DEPTH (nearest ft.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)

A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29.

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

above below LAND SURFACE 2.5 (nearest foot)

NUMBER OF UNSUCCESSFUL WELLS: NONE

WELL HYDROFRACTURED YES Y NO N

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. 1 M 60047

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) (E.R.O.S.) W Q

70 72 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

ACCESS RD

375

370

PZ-7

SEQUENCE NO.
(MDE USE ONLY)STATE OF MARYLAND
PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER

CE- 94- 4939
fill in this form completely

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13

15 Last Name

Owner

First Name

36 Street or RFD

57 Town

70 State

72 Zip

76

DRILLER INFORMATION

Driller's Name

76

License No.

81

Firm Name

Address

Signature

Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE
(GAL. PER MIN.)

8

12

AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY)

14

20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☐ DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, DEWATERING
- ☐ PUBLIC WATER SUPPLY WELL
- ☐ TEST, OBSERVATION, MONITORING
- ☐ GEO-THERMAL

APPROXIMATE DEPTH OF WELL 24 28 FEET

APPROXIMATE DIAMETER OF WELL _____ NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered)

JETTED

Jetted & DRIVEN

30 AIR-ROTARY

AIR-PERCUSION

ROTARY (Hydraulic Rotary)

37 CABLE

REVERSE-ROTARY

DRIVE-POINT

other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- ☐ THIS WELL WILL DEEPEMED AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED
(IF AVAILABLE) 41 _____ 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER

G A P

PERMIT No. CE- 94- 4939
70 71 72 73 74 75 76 77 78 79

B 3

LOCATION OF WELL

8 COUNTY

21

PZ-7

23 SUBDIVISION

42

SECTION

44

46

LOT

48

50

52 NEAREST TOWN

71

MILES FROM TOWN (enter 0 if in town)

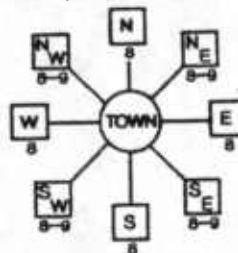
73

76

77

78

B 4

1 2
DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)

11 NEAR WHAT ROAD

30

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)34 37
DISTANCE FROM ROAD

ENTER FT OR MI 38 39

TAX MAP: 35 BLK: 9 PARCEL: 101

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

COUNTY NO.

STATE

SIGNATURE

INSERT S

41

DATE ISSUED

10-17-03

10-16-02

43 MM DD YY 48

CO SIGNATURE

EXP. DATE

NORTH

GRID

63.3

000

55

EAST

GRID

1074

000

63

SHOW MAJOR FEATURES OF
BOX & LOCATE WELL
WITH AN X

SOURCES OF DRILLING WATER

1.

2.

3.

WRITE THE BOX NUMBER
FROM THE MAP HERE

E

N

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N



03949

SEQUENCE NO.
(MDE USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

Test PZ-8 Stancills

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

CE 94 4940

28 29 30 31 32 33 34 35 36 37

THIS NUMBER IS TO BE PUNCHED
COLS. 3-6 ON ALL CARDS)

DATE RECEIVED

DATE WELL COMPLETED

DEPTH OF WELL

22 40 26

(TO NEAREST FOOT)

OWNER

STREET OR RFD

SECTION

LOT

UBDIVISION

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use
additional sheets if needed)

FEET

FROM

TO

check
if water
bearing

0 40

✓

St. brown to
dark brown
silty sand

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

YES

NO

Y

N

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT

BENTONITE CLAY

CM

BC

NO. OF BAGS

NO. OF POUNDS

49

900

GALLONS OF WATER

54

DEPTH OF GROUT SEAL (to nearest foot)

from

ft. to

ft.

48

TOP

52

54

BOTTOM

56

0

28

(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
below

ST

CO

STEEL

CONCRETE

PL

OT

PLASTIC

OTHER

MAIN
CASING
TYPE

Nominal diameter
top (main) casing
(nearest inch)

Total depth
of main casing
(nearest foot)

PL

2

30

60

61

63

64

66

68

70

OTHER CASING (if used)

diameter
inch

depth (feet)
from

to

EACH
CASING

SCREEN RECORD

screen type
or open hole

insert
appropriate
code
below

ST

BR

HO

STEEL

BRASS

OPEN
HOLE

PL

OT

PLASTIC

OTHER

DEPTH (nearest ft.)

30

40

1

2

3

4

5

6

7

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13

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3

B 1	30	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER CE - 94 - 4940 <small>fill in this form completely</small>
Date Received (APA) 8 MM DO YY 13		OWNER INFORMATION		
15 Last Name		Owner First Name		34
36 Street or RFD				55
57 Town		70 State	72 Zip	76
DRILLER INFORMATION				
Driller's Name		76 M D 47	License No. 81	
Firm Name				
Address				
Signature Date				
B 2		WELL INFORMATION		
1 2		APPROX. PUMPING RATE (GAL. PER MIN.)		
		8 00 12		
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)		14 20		
USE FOR WATER (CIRCLE APPROPRIATE BOX)				
<input type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION				
<input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)				
<input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING				
<input type="checkbox"/> PUBLIC WATER SUPPLY WELL				
<input type="checkbox"/> TEST, OBSERVATION, MONITORING				
<input type="checkbox"/> GEO-THERMAL				
APPROXIMATE DEPTH OF WELL <u>40</u> FEET				
APPROXIMATE DIAMETER OF WELL _____ INCH				
METHOD OF DRILLING (circle one)				
BORED (or Augered) JETTED Jetted & DRIVEN				
30 AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)				
37 CABLE REVERSE-ROTARY Drive-POINT				
other _____				
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)				
<input type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL				
<input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED				
39 <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS				
<input type="checkbox"/> THIS WELL WILL DEEPEMED AN EXISTING WELL				
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 _____ 52				
Not to be filled in by driller (MDE OR COUNTY USE ONLY)				
APPROP. PERMIT NUMBER 54 _____ GAP _____ 63				
PERMIT No. CE- 94- 4940				
70 71 72 73 74 75 76 77 78 79				

B 3		LOCATION OF WELL	
8 COUNTY		21 PZ-8	
23 SUBDIVISION		42	
SECTION <u>44</u> <u>46</u>		LOT <u>48</u> <u>50</u>	
52 NEAREST TOWN		71	
MILES FROM TOWN (enter 0 if in town) <u>73</u> <u>76</u> <u>77</u> <u>78</u>			
B 4		1 2	
DIRECTION OF WELL FROM TOWN (CIRCLE BOX)		11 NEAR WHAT ROAD	
		ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)	
		NORTH <input type="checkbox"/> WEST <input type="checkbox"/> EAST <input type="checkbox"/> SOUTH <input type="checkbox"/>	
		34 <u>300</u> 37	
		DISTANCE FROM ROAD <u>FT</u>	
		ENTER FT OR MI 38 39	
		TAX MAP: <u>35</u> BLK: <u>2</u> PARCEL: <u>121</u>	

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL	
Cecil	
COUNTY NAME	COUNTY NO.
STATE SIGNATURE	INSERT S → 41
DATE ISSUED <u>10-17-01</u>	10-16-02
43 MM DO YY 48	CO SIGNATURE
NORTH GRID <u>632</u> <u>000</u>	EAST GRID <u>1074</u> <u>000</u>
50 55	57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X	
SOURCES OF DRILLING WATER	
1. <u>1000 ft</u>	
2.	
3.	
WRITE THE BOX NUMBER FROM THE MAP HERE	
E <u>1070</u>	
N <u>000</u>	
DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION	

SEQUENCE NO.
(MDE USE ONLY)STATE OF MARYLAND
PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER

CE- 94 - 4941

70 fill in this form completely 79

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13

15 Last Name Owner First Name 34

36 Street or RFD 55

52 Town 70 State 72 Zip 76

DRILLER INFORMATION

Driller's Name 76 License No. 81

Firm Name

Address

Signature Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE
(GAL. PER MIN.)

8 12

AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY)

14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☐ DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, DEWATERING
- ☐ PUBLIC WATER SUPPLY WELL
- ☐ TEST, OBSERVATION, MONITORING
- ☐ GEO-THERMAL

APPROXIMATE DEPTH OF WELL 40 FEET

APPROXIMATE DIAMETER OF WELL 2 INCH NEAREST INCH

METHOD OF DRILLING (circle one)

- BORED (or Augered) JETTED Jetted & DRIVEN
- AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)
- CABLE REVERSE-ROTary Drive-POINT
- other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- ☐ THIS WELL WILL DEEPEMED AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED-OR DEEPEMED
(IF AVAILABLE) 41 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROX. PERMIT NUMBER 54 G A P 63

PERMIT No. CE - 94 - 4941
70 71 72 73 74 75 76 77 78 79

B 3 LOCATION OF WELL

8 COUNTY 21 PZ-9

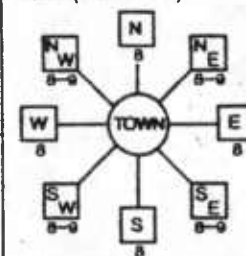
23 SUBDIVISION 42

SECTION 44 46 LOT 48 50

52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 73 76 77 78

B 4

1 2
DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)

11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)34 37
DISTANCE FROM ROAD 1+

ENTER FT OR MI 38 39

TAX MAP: 35 BLK: 2 PARCEL 121

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVALCecil
COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S 41

DATE ISSUED 10-17-01 10-16-02

43 MM DD YY 48 CO SIGNATURE EXP. DATE

NORTH GRID 63 000 EAST GRID 175 000
50 55 57 63SHOW MAJOR FEATURES OF
BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

- 1.
- 2.
- 3.

WRITE THE BOX NUMBER
FROM THE MAP HERE

E 1070

N 630

000
000DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

PZ-9

100'

100'

100'

100'

03950

SEQUENCE NO.
(MODE USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)COUNTY Test PZ-9 Stancills
NUMBER

ST/CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

DATE Received

10-23-01

22 90 26
(TO NEAREST FOOT)CE 94 4941
28 29 30 31 32 33 34 35 36 37

OWNER

STREET OR RFD

SUBDIVISION

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)FEET
FROM TOcheck
if water
bearinglt. brown to
dark brown
silty sand

0 40

✓

lt. brown to
dk. brown silty
sand w/ trace
of red clay

40 95

✓

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)yes no
Y N
44 44

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM

BENTONITE CLAY BC

NO. OF BAGS 24 NO. OF POUNDS 2400

GALLONS OF WATER 136

DEPTH OF GROUT SEAL (to nearest foot)

from 48 TOP 52 ft. to 54 BOTTOM 58 ft.
(enter 0 if from surface)casing
types
insert
appropriate
code
below

CASING RECORD

ST
STEELCO
CONCRETEPL
PLASTICOT
OTHERMAIN
CASING
TYPE
PLNominal diameter
top (main) casing
(nearest inch) 2Total depth
of main casing
(nearest foot) 80E
A
C
H
C
A
S
I
N
G

OTHER CASING (if used)

diameter depth (feet)
inch from toscreen type
or open hole

SCREEN RECORD

ST
STEELBR
BRASSHO
OPEN
HOLEPL
PLASTICOT
OTHER

C 2

DEPTH (nearest ft.)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
SLOT SIZE 1 010 2 3DIAMETER
OF SCREEN 2 (NEAREST
INCH)
from 58 to 60GRAVEL PACK
IF WELL DRILLED
WAS FLOWING WELL
INSERT F IN BOX 68MODE USE ONLY
(NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q70
TELESCOPE
CASING72
LOG
INDICATOR74 75 76
OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO
MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)

A air P piston T turbine
C centrifugal R rotary O other
(describe below)
J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP YES NO
(CIRCLE) (YES or NO)IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS.TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O)
IN BOX 29CAPACITY:
GALLONS PER MINUTE
(to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH
(nearest ft.) 43 47CASING HEIGHT (circle appropriate box
and enter casing height)+ above
- below
LAND SURFACE 2.5 (nearest
foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND /OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

DRILLER'S L.B. NO. M6 D047

DRILLER'S SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 D 1

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

Project: MES Stancill Quarry
 Project Location: Cecil County, Maryland
 Project Number: 89-00000229.00

Log of Boring P-1

Sheet 1 of 1

Date(s) Drilled	10/22/2000 - 10/23/2000	Logged By	E. Koubek	Checked By	J. Kashatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	20.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	21.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES					Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.				Liquid Limit	Plastic Limit	Plasticity Index	
0	0							(FILL)					
20								Firm SAND, black, dry (SP)					
5								GRAVEL (yellow) mixed with cobbles (GC)					
								Medium to fine SAND, dark brown to black, dry (SM)					
10								Silty SAND, light brown, moist (SM)					
								Silty SAND, light brown, mixed with clay, wet (SM)					
15								Sandy CLAY, brown, wet (CL)					
20													
0	20												
	25												
	30												
-10	35												
	40												

Project: MES Stancill Quarry
 Project Location: Cecil County, Maryland
 Project Number: 89-00000229.00

Log of Boring P-2

Sheet 1 of 1

Date(s) Drilled	10/24/2000 - 10/24/2000	Logged By	E. Koubek	Checked By	J. Kasheus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	25.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	12.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well installed.	Comments			


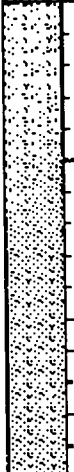




Elevation, feet	Depth, feet	SAMPLES					Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft.	Recovery, in.				Liquid Limit	Plastic Limit	Plasticity Index	
0	0							(FILL)					
-10	10							coarse GRAVEL, loose (GM)					
-5	15							Silty fine SAND, light brown, moist (SM)					
-10	20							Silty fine SAND, light brown, wet (SM)					
-15	25							Silty fine SAND, light brown, very wet (SM)					
-20	30							Silty fine SAND mixed with soft clay, light brown, very wet (SC)					
-25	35												
-30	40												

Project: MES Stancill Quarry
Project Location: Cecil County, Maryland
Project Number: 89-00000229.00

Log of Boring P-3

Sheet 1 of 2

Date(s) Drilled	10/23/2000 - 10/23/2000	Logged By	E. Koubek	Checked By	J. Kashabus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	45.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	19.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES					Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.				Liquid Limit	Plastic Limit	Plasticity Index	
	0							general quarry fill (sand and gravel)					
	6							SAND, brown, mixed with gravel (quarry fill) (SP)					
-10	10												
	15												
0	20							Silty fine SAND, light brown, dry, stiff (SM)					
	25							Silty fine SAND, light brown, moist, soft (SM)					
-10	30							Silty fine SAND, light brown, very wet (SM)					
	35							fine SAND, white, moist, stiff (SC)					
-20	40												

Report: GEO_10A_GAITHR File: MES.CPJ.k 05/2002 P-3

IPS

Project: MES Stancill Quarry
 Project Location: Cecil County, Maryland
 Project Number: 89-00000229.00

Log of Boring P-3

Sheet 2 of 2

Elevation, feet	Depth, feet	SAMPLES					Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.				Liquid Limit	Plastic Limit	Plasticity Index	
46								SAPROLITE, dark brown, dry, very dense					
45													
30													
28													
26													
40													
38													
36													
34													
32													
30													
28													
26													
24													
22													
20													
18													
16													
14													
12													
10													
8													
6													
4													
2													
0													

Project: MES Stancill Quarry
 Project Location: Cecil County, Maryland
 Project Number: 89-00000229.00

Log of Boring P-4

Sheet 1 of 1

Date(s) Drilled	10/23/2000 - 10/23/2000	Logged By	E. Koubek	Checked By	J. Kaehatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	20.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	11.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well Installed.	Comments			






Elevation, feet	Depth, feet	SAMPLES					Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 8 in.	SPT N-Value, Blows / ft.	Recovery, in.				Liquid Limit	Plastic Limit	Plasticity Index	
0	0							fill (sand and gravel)					
-10	10							SAND, some fine to medium, dark brown, dry, soft (SP)					
	5												
	10							Silty SAND, light brown, wet (SM)					
-20	20							Silty SAND, light brown, very wet (SM)					
	25												
	30												
-20	30												
	35												
	40												

Project: MES Stancill Quarry
 Project Location: Cecil County, Maryland
 Project Number: 89-00000229.00

Log of Boring P-5

Sheet 1 of 1

Date(s) Drilled 10/22/2000 - 10/22/2000	Logged By E. Koubek	Checked By J. Keshatus
Drilling Method HSA	Drill Bit Size/Type	Total Depth of Borehole 20.0 feet
Drill Rig Type	Drilling Contractor Earth Matters	Surface Elevation 38.0 ft. msl
Groundwater Level(s)	Sampling Method(s) NA	Hammer Data NA
Borehole Backfill Well installed.	Comments	

Elevation, feet	Depth, feet	SAMPLES					Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.				Liquid Limit	Plastic Limit	Plasticity Index	
0	0							fill (sand and gravel)					
								SAND, some silt, brown to light brown, dry, firm (SP)					
30	5							medium to coarse GRAVEL, dark green, dry to moist (GM)					
								Silty SAND, light brown, moist (SM)					
10	10							Silty SAND, trace clay, light brown, very wet (SM)					
20	20												
25	25												
30	30												
35	35												
40	40												

Project: MES Stancill Quarry

Project Location: Cecil County, Maryland

Project Number: 89-00000229.00

Log of Boring P-6

Sheet 1 of 1

Date(s) Drilled	10/23/2000 - 10/23/2000	Logged By	E. Koubek	Checked By	J. Keshatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	20.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	8.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES					Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-value, Blows / ft	Recovery, in.				Liquid Limit	Plastic Limit	Plasticity Index	
0	0							Sand, white, recently excavated area					
								Silty SAND with some fine gravels, light brown, moist (SM)					
6	6							Medium to coarse GRAVEL, dark green, moist (GM)					
10	10							Silty sand with gravel, light brown, very wet (SP)					
15	15												
20	20												
25	25												
30	30												
35	35												
40	40												





Report: GEO_10A_GAITH: File: MES_GP_1: 8/5/2002 P.4

Project: MES Stancill Quarry
 Project Location: Cecil County, Maryland
 Project Number: 89-00000229.00

Log of Boring P-7

Sheet 1 of 1

Date(s) Drilled	10/24/2000 - 10/24/2000	Logged By	E. Koubek	Checked By	J. Keshatus
Drilling Method	HSA	Drill Bit Size/Type		Total Depth of Borehole	20.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	6.0 ft. met
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES					Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.				Liquid Limit	Plastic Limit	Plasticity Index	
0	0							fill (sand and gravel)					
								Silty SAND, light brown, dry, soft (SM)					
-5	5							Silty SAND with fine gravel, light brown, moist (ML)					
-10	10							Silty SAND, trace clay, light brown, very wet (SM)					
-15	15												
-20	20												
-25	25												
-30	30												
-35	35												
-40	40												

Project: MES Stancill Quarry
Project Location: Cecil County, Maryland
Project Number: 89-00000228.00

Log of Boring P-8

Sheet 1 of 3

Date(s) Drilled	10/22/2000 - 10/23/2000	Logged By	E. Koubek	Checked By	J. Kashatus
Drilling Method	H&A	Drill Bit Size/Type		Total Depth of Borehole	96.0 feet
Drill Rig Type		Drilling Contractor	Earth Matters	Surface Elevation	98.0 ft. msl
Groundwater Level(s)		Sampling Method(s)	NA	Hammer Data	NA
Borehole Backfill	Well installed.	Comments			

Elevation, feet	Depth, feet	SAMPLES					Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.				Liquid Limit	Plastic Limit	Plasticity Index	
0	0							(TOPSOIL) Soil, dark brown					
	5							CLAY, light brown, some silt, dry (CL)					
10	10							CLAY, light brown to orange, dry, firm (CL)					
15	15							SAND, light brown to brown, dry, firm (SP)					
20	20							silty SAND, light brown, some gravel, dry, firm (SM)					
25	25												
30	30												
35	35												
40	40												

Report: GEO_10A_GANTIN_FWI_MES_QP.J: 10/5/2002 P-8

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Project: MES Stancill Quarry
 Project Location: Cecil County, Maryland
 Project Number: 88-00000229.00

Log of Boring P-8

Sheet 2 of 3

Elevation, feet	Depth, feet	SAMPLES					Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.				Liquid Limit	Plastic Limit	Plasticity Index	
40								silty SAND, light brown, some gravel, trace clay, moist, firm (SM)					
45													
50													
55													
60													
65								Brown, silty SAND with reddish clay, moist, stiff to very stiff (SM)					
70													
75													
80													
85													

Project: MES Stancil Quarry
 Project Location: Cecil County, Maryland
 Project Number: 89-00000229.00

Log of Boring P-8

Sheet 3 of 3

Elevation, feet	Depth, feet	SAMPLES					Graphic Log	MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.				Liquid Limit	Plastic Limit	Plasticity Index	
10													NO SIGNIFICANT WATER ENCOUNTERED
20													
30													
40													
50													
60													
70													
80													
90													
100													
105													
110													
115													
120													
125													
130													

Project: MES Stancill Quarry
 Project Location: Cecil County, Maryland
 Project Number: 89-00000229.00

Log of Boring P-8

Sheet 3 of 3

Elevation, feet	Depth, feet	SAMPLES					MATERIAL DESCRIPTION	Water Content, %	ATTERBERG LIMITS			REMARKS AND OTHER TESTS
		Type	Number	Sampling Resistance, Blows / 6 in.	SPT N-Value, Blows / ft	Recovery, in.			Liquid Limit	Plastic Limit	Plasticity Index	
10												
90												
85												NO SIGNIFICANT WATER ENCOUNTERED
0												
100												
105												
-10												
110												
115												
-20												
120												
125												
-30												
130												

A-2 WATER LEVEL READINGS

Instrument type : LT-Levellogger 26800									
Instrument number : 26800-SO#34615									
Location : Piezometer #6 Stancill Quarry									
Sample mode : T									
Channel 1 : LEVEL									
Reference : 0.00 ft									
Range : 32.80 ft									
Master level : 0.00 ft									
Channel 2 : TEMPERATURE									
Reference : -20.00 DEG C									
Range : 100.00 DEG C									
No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure- Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
1	01/08/2002	20:00:00	10.06	11.42	30.01	34.06	2.90	7.16	1.70
2	01/09/2002	8:00:00	9.93	11.17	29.86	33.89	2.73	7.20	1.74
3	01/09/2002	20:00:00	9.72	11.25	29.68	33.69	2.53	7.19	1.73
4	01/10/2002	8:00:00	9.84	11.4	29.81	33.83	2.67	7.17	1.71
5	01/10/2002	20:00:00	9.86	11.09	29.81	33.83	2.67	7.19	1.73
6	01/11/2002	8:00:00	9.76	11.37	29.84	33.87	2.71	7.05	1.59
7	01/11/2002	20:00:00	9.92	11.08	29.84	33.87	2.71	7.21	1.75
8	01/12/2002	8:00:00	10.07	11.35	29.83	33.86	2.70	7.37	1.91
9	01/12/2002	20:00:00	9.82	10.98	29.83	33.86	2.70	7.12	1.66
10	01/13/2002	8:00:00	9.6	11.09	29.72	33.73	2.57	7.03	1.57
11	01/13/2002	20:00:00	9.96	11.22	29.72	33.73	2.57	7.39	1.93
12	01/14/2002	8:00:00	10.17	11	30.14	34.21	3.05	7.12	1.66
13	01/14/2002	20:00:00	9.98	11.19	30.14	34.21	3.05	6.93	1.47
14	01/15/2002	8:00:00	9.92	11.21	30.05	34.11	2.95	6.97	1.51
15	01/15/2002	20:00:00	10.04	11.18	30.05	34.11	2.95	7.09	1.63
16	01/16/2002	8:00:00	10.28	11.1	30.21	34.29	3.13	7.15	1.69
17	01/16/2002	20:00:00	10.23	11.17	30.21	34.29	3.13	7.10	1.64
18	01/17/2002	8:00:00	9.98	11	29.97	34.02	2.86	7.12	1.66
19	01/17/2002	20:00:00	10.03	10.69	29.97	34.02	2.86	7.17	1.71
20	01/18/2002	8:00:00	10.09	11.03	30.14	34.21	3.05	7.04	1.58

No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure- Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
21	01/18/2002	20:00:00	10.22	10.83	30.14	34.21	3.05	7.17	1.71
22	01/19/2002	8:00:00	10.18	10.86	30.21	34.29	3.13	7.05	1.59
23	01/19/2002	20:00:00	9.77	11.06	29.80	33.82	2.66	7.11	1.65
24	01/20/2002	8:00:00	10.07	11.04	30.14	34.21	3.05	7.02	1.56
25	01/20/2002	20:00:00	10.15	10.89	30.14	34.21	3.05	7.10	1.64
26	01/21/2002	8:00:00	9.93	11.03	30.11	34.17	3.01	6.92	1.46
27	01/21/2002	20:00:00	9.83	10.85	30.11	34.17	3.01	6.82	1.36
28	01/22/2002	8:00:00	10.2	10.73	30.38	34.48	3.32	6.88	1.42
29	01/22/2002	20:00:00	10.33	10.58	30.38	34.48	3.32	7.01	1.55
30	01/23/2002	8:00:00	10.13	10.95	30.38	34.48	3.32	6.81	1.35
31	01/23/2002	20:00:00	9.87	10.67	30.38	34.48	3.32	6.55	1.09
32	01/24/2002	8:00:00	9.66	10.54	30.11	34.17	3.01	6.65	1.19
33	01/24/2002	20:00:00	9.55	10.75	30.11	34.17	3.01	6.54	1.08
34	01/25/2002	8:00:00	9.93	10.61	29.67	33.68	2.52	7.41	1.95
35	01/25/2002	20:00:00	10.1	10.79	29.67	33.68	2.52	7.58	2.12
36	01/26/2002	8:00:00	10.16	10.54	30.30	34.39	3.23	6.93	1.47
37	01/26/2002	20:00:00	10.11	10.77	30.30	34.39	3.23	6.88	1.42
38	01/27/2002	8:00:00	10.13	10.64	30.22	34.30	3.14	6.99	1.53
39	01/27/2002	20:00:00	10.07	10.53	30.22	34.30	3.14	6.93	1.47
40	01/28/2002	8:00:00	10	10.7	30.15	34.22	3.06	6.94	1.48
41	01/28/2002	20:00:00	9.88	10.41	30.15	34.22	3.06	6.82	1.36
42	01/29/2002	8:00:00	9.87	10.37	30.15	34.22	3.06	6.81	1.35
43	01/29/2002	20:00:00	9.86	10.68	30.15	34.22	3.06	6.80	1.34
44	01/30/2002	8:00:00	9.82	10.42	30.15	34.22	3.06	6.76	1.30
45	01/30/2002	20:00:00	10.03	10.73	30.15	34.22	3.06	6.97	1.51
46	01/31/2002	8:00:00	10.14	10.71	30.03	34.08	2.92	7.22	1.76
47	01/31/2002	20:00:00	10.01	10.65	30.03	34.08	2.92	7.09	1.63
48	02/01/2002	8:00:00	9.69	10.4	29.89	33.93	2.77	6.92	1.46
49	02/01/2002	20:00:00	9.75	10.65	29.89	33.93	2.77	6.98	1.52
50	02/02/2002	8:00:00	10.14	10.63	30.33	34.42	3.26	6.88	1.42
51	02/02/2002	20:00:00	10.19	10.52	30.39	34.49	3.33	6.86	1.40

No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure- Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
52	02/03/2002	8:00:00	10.02	10.47	30.10	34.16	3.00	7.02	1.56
53	02/03/2002	20:00:00	9.68	10.55	30.10	34.16	3.00	6.68	1.22
54	02/04/2002	8:00:00	9.49	10.65	29.79	33.81	2.65	6.84	1.38
55	02/04/2002	20:00:00	9.63	10.44	29.79	33.81	2.65	6.98	1.52
56	02/05/2002	8:00:00	10.01	10.43	30.36	34.46	3.30	6.71	1.25
57	02/05/2002	20:00:00	9.84	10.35	30.18	34.25	3.09	6.75	1.29
58	02/06/2002	8:00:00	9.94	10.61	30.33	34.42	3.26	6.68	1.22
59	02/06/2002	20:00:00	9.83	10.38	30.18	34.25	3.09	6.74	1.28
60	02/07/2002	8:00:00	9.59	10.57	30.01	34.06	2.90	6.69	1.23
61	02/07/2002	20:00:00	9.41	10.4	29.86	33.89	2.73	6.68	1.22
62	02/08/2002	8:00:00	9.6	10.53	30.09	34.15	2.99	6.61	1.15
63	02/08/2002	20:00:00	9.6	10.51	30.06	34.12	2.96	6.64	1.18
64	02/09/2002	8:00:00	9.94	10.31	30.42	34.53	3.37	6.57	1.11
65	02/09/2002	20:00:00	10.05	10.35	30.48	34.59	3.43	6.62	1.16
66	02/10/2002	8:00:00	9.93	10.6	30.27	34.36	3.20	6.73	1.27
67	02/10/2002	20:00:00	9.35	10.31	29.83	33.86	2.70	6.65	1.19
68	02/11/2002	8:00:00	9.31	10.47	29.80	33.82	2.66	6.65	1.19
69	02/11/2002	20:00:00	9.8	10.6	30.21	34.29	3.13	6.67	1.21
70	02/12/2002	8:00:00	9.69	10.31	30.06	34.12	2.96	6.73	1.27
71	02/12/2002	20:00:00	9.49	10.37	29.89	33.93	2.77	6.72	1.26
72	02/13/2002	8:00:00	9.7	10.65	30.06	34.12	2.96	6.74	1.28
73	02/13/2002	20:00:00	9.96	10.63	30.30	34.39	3.23	6.73	1.27
74	02/14/2002	8:00:00	10.08	10.36	30.45	34.56	3.40	6.68	1.22
75	02/14/2002	20:00:00	10.01	10.67	30.39	34.49	3.33	6.68	1.22
76	02/15/2002	8:00:00	9.9	10.31	30.27	34.36	3.20	6.70	1.24
77	02/15/2002	20:00:00	9.59	10.65	30.01	34.06	2.90	6.69	1.23
78	02/16/2002	8:00:00	9.42	10.46	29.89	33.93	2.77	6.65	1.19
79	02/16/2002	20:00:00	9.26	10.49	29.71	33.72	2.56	6.70	1.24
80	02/17/2002	8:00:00	9.26	10.6	29.77	33.79	2.63	6.63	1.17
81	02/17/2002	20:00:00	9.49	10.59	29.98	34.03	2.87	6.62	1.16
82	02/18/2002	8:00:00	9.77	10.27	30.27	34.36	3.20	6.57	1.11

No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure- Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
83	02/18/2002	20:00:00	9.84	10.59	30.27	34.36	3.20	6.64	1.18
84	02/19/2002	8:00:00	9.84	10.55	30.30	34.39	3.23	6.61	1.15
85	02/19/2002	20:00:00	9.71	10.57	30.21	34.29	3.13	6.58	1.12
86	02/20/2002	8:00:00	9.53	10.37	30.06	34.12	2.96	6.57	1.11
87	02/20/2002	20:00:00	9.22	10.55	29.80	33.82	2.66	6.56	1.10
88	02/21/2002	8:00:00	9.18	10.46	29.83	33.86	2.70	6.48	1.02
89	02/21/2002	20:00:00	9.23	10.42	29.86	33.89	2.73	6.50	1.04
90	02/22/2002	8:00:00	9.29	10.3	29.95	33.99	2.83	6.46	1.00
91	02/22/2002	20:00:00	9.41	10.35	30.04	34.10	2.94	6.47	1.01
92	02/23/2002	8:00:00	9.46	10.39	30.15	34.22	3.06	6.40	0.94
93	02/23/2002	20:00:00	9.44	10.55	30.15	34.22	3.06	6.38	0.92
94	02/24/2002	8:00:00	9.59	10.27	30.27	34.36	3.20	6.39	0.93
95	02/24/2002	20:00:00	9.53	10.43	30.24	34.32	3.16	6.37	0.91
96	02/25/2002	8:00:00	9.52	10.22	30.24	34.32	3.16	6.36	0.90
97	02/25/2002	20:00:00	9.29	10.56	30.04	34.10	2.94	6.35	0.89
98	02/26/2002	8:00:00	9	10.27	29.80	33.82	2.66	6.34	0.88
99	02/26/2002	20:00:00	8.7	10.31	29.62	33.62	2.46	6.24	0.78
100	02/27/2002	8:00:00	8.86	10.49	29.71	33.72	2.56	6.30	0.84
101	02/27/2002	20:00:00	8.9	10.25	29.83	33.86	2.70	6.20	0.74
102	02/28/2002	8:00:00	9.21	10.31	30.09	34.15	2.99	6.22	0.76
103	02/28/2002	20:00:00	9.28	10.59	30.21	34.29	3.13	6.15	0.69
104	03/01/2002	8:00:00	9.55	10.26	30.45	34.56	3.40	6.15	0.69
105	03/01/2002	20:00:00	9.59	10.53	30.51	34.63	3.47	6.12	0.66
106	03/02/2002	8:00:00	9.61	10.31	30.54	34.66	3.50	6.11	0.65
107	03/02/2002	20:00:00	9.17	10.35	30.12	34.19	3.03	6.14	0.68
108	03/03/2002	8:00:00	8.69	10.52	29.68	33.69	2.53	6.16	0.70
109	03/03/2002	20:00:00	8.73	10.3	29.74	33.75	2.59	6.14	0.68
110	03/04/2002	8:00:00	9.03	10.3	30.04	34.10	2.94	6.09	0.63
111	03/04/2002	20:00:00	9.23	10.34	30.18	34.25	3.09	6.14	0.68
112	03/05/2002	8:00:00	9.49	10.35	30.42	34.53	3.37	6.12	0.66
113	03/05/2002	20:00:00	9.39	10.49	30.30	34.39	3.23	6.16	0.70

No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure- Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
114	03/06/2002	8:00:00	9.4	10.57	30.44	34.55	3.39	6.01	0.55
115	03/06/2002	20:00:00	9.24	10.39	30.18	34.25	3.09	6.15	0.69
116	03/07/2002	8:00:00	9.33	10.63	30.27	34.36	3.20	6.13	0.67
117	03/07/2002	20:00:00	9.29	10.49	30.27	34.36	3.20	6.09	0.63
118	03/08/2002	8:00:00	9.43	10.49	30.42	34.53	3.37	6.06	0.60
119	03/08/2002	20:00:00	9.4	10.41	30.36	34.46	3.30	6.10	0.64
120	03/09/2002	8:00:00	9.39	10.65	30.39	34.49	3.33	6.06	0.60
121	03/09/2002	20:00:00	9	10.32	30.01	34.06	2.90	6.10	0.64
122	03/10/2002	8:00:00	9.07	10.6	30.12	34.19	3.03	6.04	0.58
123	03/10/2002	20:00:00	9.22	10.32	30.24	34.32	3.16	6.06	0.60
124	03/11/2002	8:00:00	9.46	10.54	30.48	34.59	3.43	6.03	0.57
125	03/11/2002	20:00:00	9.32	10.29	30.33	34.42	3.26	6.06	0.60
126	03/12/2002	8:00:00	9.19	10.49	30.21	34.29	3.13	6.06	0.60
127	03/12/2002	20:00:00	9.06	10.57	30.12	34.19	3.03	6.03	0.57
128	03/13/2002	8:00:00	8.86	10.33	29.95	33.99	2.83	6.03	0.57
129	03/13/2002	20:00:00	8.67	10.3	29.80	33.82	2.66	6.01	0.55
130	03/14/2002	8:00:00	8.89	10.24	30.04	34.10	2.94	5.95	0.49
131	03/14/2002	20:00:00	8.93	10.26	30.04	34.10	2.94	5.99	0.53
132	03/15/2002	8:00:00	8.91	10.54	30.01	34.06	2.90	6.01	0.55
133	03/15/2002	20:00:00	8.77	10.53	29.86	33.89	2.73	6.04	0.58
134	03/16/2002	8:00:00	8.74	10.59	29.86	33.89	2.73	6.01	0.55
135	03/16/2002	20:00:00	9.09	10.27	30.15	34.22	3.06	6.03	0.57
136	03/17/2002	8:00:00	9.39	10.24	30.42	34.53	3.37	6.02	0.56
137	03/17/2002	20:00:00	9.34	10.31	30.39	34.49	3.33	6.01	0.55
138	03/18/2002	8:00:00	9.21	10.28	30.24	34.32	3.16	6.05	0.59
139	03/18/2002	20:00:00	9.2	10.31	30.24	34.32	3.16	6.04	0.58
140	03/19/2002	8:00:00	9.34	10.36	30.36	34.46	3.30	6.04	0.58
141	03/19/2002	20:00:00	9.32	10.31	30.33	34.42	3.26	6.06	0.60
142	03/20/2002	8:00:00	9.11	10.4	30.09	34.15	2.99	6.12	0.66
143	03/20/2002	20:00:00	8.89	10.34	29.92	33.96	2.80	6.09	0.63
144	03/21/2002	8:00:00	9.07	10.32	30.04	34.10	2.94	6.13	0.67

No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in inch Hg	Barometric Pressure in water column equivalent (ft)	Barometric pressure- Elevation corrected barometric pressure offset value	Compensated Water Level (ft)	Ground Water Elevation (ft)
145	03/21/2002	20:00:00	8.79	10.62	29.71	33.72	2.56	6.23	0.77
146	03/22/2002	8:00:00	9.33	10.31	30.15	34.22	3.06	6.27	0.81
147	03/22/2002	20:00:00	9.43	10.43	30.15	34.22	3.06	6.37	0.91
148	03/23/2002	8:00:00	9.53	10.57	30.21	34.29	3.13	6.40	0.94
149	03/23/2002	20:00:00	9.35	10.63	29.98	34.03	2.87	6.48	1.02
150	03/24/2002	8:00:00	9.59	10.45	30.15	34.22	3.06	6.53	1.07
151	03/24/2002	20:00:00	9.51	10.51	30.04	34.10	2.94	6.57	1.11
152	03/25/2002	8:00:00	9.71	10.28	30.21	34.29	3.13	6.58	1.12
153	03/25/2002	20:00:00	9.81	10.28	30.27	34.36	3.20	6.61	1.15
154	03/26/2002	8:00:00	9.79	10.32	30.24	34.32	3.16	6.63	1.17
155	03/26/2002	20:00:00	9.35	10.3	29.92	33.96	2.80	6.55	1.09
156	03/27/2002	8:00:00	9.5	10.27	30.01	34.06	2.90	6.60	1.14
157	03/27/2002	20:00:00	9.61	10.32	30.09	34.15	2.99	6.62	1.16
158	03/28/2002	8:00:00	9.74	10.33	30.21	34.29	3.13	6.61	1.15
159	03/28/2002	20:00:00	9.63	10.27	30.09	34.15	2.99	6.64	1.18
160	03/29/2002	8:00:00	9.71	10.33	30.12	34.19	3.03	6.68	1.22
161	03/29/2002	20:00:00	9.5	10.53	29.92	33.96	2.80	6.70	1.24
162	03/30/2002	8:00:00	9.42	10.25	29.83	33.86	2.70	6.72	1.26
163	03/30/2002	20:00:00	9.63	10.26	30.01	34.06	2.90	6.73	1.27
164	03/31/2002	8:00:00	9.7	10.49	30.09	34.15	2.99	6.71	1.25
165	03/31/2002	20:00:00	9.53	10.53	29.92	33.96	2.80	6.73	1.27
166	04/01/2002	8:00:00	9.44	10.49	29.86	33.89	2.73	6.71	1.25
167	04/01/2002	20:00:00	9.62	10.26	29.98	34.03	2.87	6.75	1.29
168	04/02/2002	8:00:00	9.78	10.27	30.12	34.19	3.03	6.75	1.29
169	04/02/2002	20:00:00	9.53	10.21	29.89	33.93	2.77	6.76	1.30
170	04/03/2002	8:00:00	9.42	10.29	29.83	33.86	2.70	6.72	1.26

Stancill Quarry, Furnace Bay						
Project # 01116.00						
Instrument type : LT-Levellogger 26800						
Instrument number : 26800-SO#34615						
Location : Piezometer #6 Stancill Quarry						
Sample mode : T						
Channel 1 : LEVEL						
Reference : 0.00 ft						
Range : 32.80 ft						
Master level : 0.00 ft						
Channel 2 : TEMPERATURE						
Reference : -20.00 DEG C						
Range : 100.00 DEG C						
No.	Date	Time	Channel 1 (ft)	Channel 2 (deg. C)	Barometric Pressure in water column equivalent (ft)	Compensated Water Level (ft)
1	12/11/2001	12:00:00	10.62	12.17	1.44	9.18
2	12/11/2001	13:00:00	10.63	12.12	1.44	9.19
3	12/11/2001	14:00:00	10.6	12.09	1.44	9.16
4	12/11/2001	15:00:00	10.6	12.08	1.44	9.16
5	12/11/2001	16:00:00	10.61	12.08	1.44	9.17
6	12/11/2001	17:00:00	10.65	12.12	1.43	9.22
7	12/11/2001	18:00:00	10.68	12.09	1.43	9.25
8	12/11/2001	19:00:00	10.68	12.07	1.43	9.25
9	12/11/2001	20:00:00	10.69	12.1	1.43	9.26
10	12/11/2001	21:00:00	10.72	12.09	1.43	9.29
11	12/11/2001	22:00:00	10.7	12.09	1.43	9.27
12	12/11/2001	23:00:00	10.73	12.1	1.43	9.30
13	12/12/2001	0:00:00	10.73	12.12	1.43	9.30
14	12/12/2001	1:00:00	10.72	12.09	1.43	9.29
15	12/12/2001	2:00:00	10.72	12.09	1.43	9.29
16	12/12/2001	3:00:00	10.74	12.13	1.42	9.32
17	12/12/2001	4:00:00	10.73	12.15	1.42	9.31
18	12/12/2001	5:00:00	10.75	12.11	1.42	9.33
19	12/12/2001	6:00:00	10.75	12.1	1.42	9.33
20	12/12/2001	7:00:00	10.77	12.1	1.42	9.35
21	12/12/2001	8:00:00	10.78	12.07	1.42	9.36
22	12/12/2001	9:00:00	10.79	12.2	1.42	9.37
23	12/12/2001	10:00:00	10.78	12.11	1.42	9.36
24	12/12/2001	11:00:00	10.76	12.14	1.42	9.34
25	12/12/2001	12:00:00	10.73	12.12	1.41	9.32
26	12/12/2001	13:00:00	10.7	12.1	1.41	9.29
27	12/12/2001	14:00:00	10.67	12.12	1.41	9.26
28	12/12/2001	15:00:00	10.64	12.1	1.41	9.23
29	12/12/2001	16:00:00	10.64	12.09	1.41	9.23
30	12/12/2001	17:00:00	10.64	12.09	1.41	9.23
31	12/12/2001	18:00:00	10.61	12.07	1.41	9.20
32	12/12/2001	19:00:00	10.62	12.07	1.41	9.21
33	12/12/2001	20:00:00	10.64	12.08	1.41	9.23
34	12/12/2001	21:00:00	10.6	12.11	1.40	9.20
35	12/12/2001	22:00:00	10.59	12.08	1.40	9.19

36	12/12/2001	23:00:00	10.55	12.13	1.40	9.15
37	12/13/2001	0:00:00	10.53	12.18	1.40	9.13
38	12/13/2001	1:00:00	10.5	12.11	1.40	9.10
39	12/13/2001	2:00:00	10.47	12.12	1.40	9.07
40	12/13/2001	3:00:00	10.42	12.09	1.40	9.02
41	12/13/2001	4:00:00	10.39	12.08	1.40	8.99
42	12/13/2001	5:00:00	10.38	12.12	1.40	8.98
43	12/13/2001	6:00:00	10.35	12.13	1.40	8.95
44	12/13/2001	7:00:00	10.35	12.1	1.39	8.96
45	12/13/2001	8:00:00	10.33	12.11	1.39	8.94
46	12/13/2001	9:00:00	10.32	12.08	1.39	8.93
47	12/13/2001	10:00:00	10.31	12.12	1.39	8.92
48	12/13/2001	11:00:00	10.29	12.08	1.39	8.90
49	12/13/2001	12:00:00	10.26	12.08	1.39	8.87
50	12/13/2001	13:00:00	10.24	12.07	1.39	8.85
51	12/13/2001	14:00:00	10.21	12.08	1.39	8.82
52	12/13/2001	15:00:00	10.18	12.08	1.39	8.79
53	12/13/2001	16:00:00	10.2	12.12	1.38	8.82
54	12/13/2001	17:00:00	10.18	12.17	1.38	8.80
55	12/13/2001	18:00:00	10.21	12.1	1.38	8.83
56	12/13/2001	19:00:00	10.21	12.13	1.38	8.83
57	12/13/2001	20:00:00	10.19	12.08	1.38	8.81
58	12/13/2001	21:00:00	10.19	12.13	1.38	8.81
59	12/13/2001	22:00:00	10.16	12.06	1.38	8.78
60	12/13/2001	23:00:00	10.18	12.05	1.38	8.80
61	12/14/2001	0:00:00	10.19	12.07	1.38	8.81
62	12/14/2001	1:00:00	10.18	12.09	1.37	8.81
63	12/14/2001	2:00:00	10.19	12.1	1.37	8.82
64	12/14/2001	3:00:00	10.18	12.09	1.37	8.81
65	12/14/2001	4:00:00	10.18	12.09	1.37	8.81
66	12/14/2001	5:00:00	10.19	12.14	1.37	8.82
67	12/14/2001	6:00:00	10.19	12.12	1.37	8.82
68	12/14/2001	7:00:00	10.17	12.07	1.37	8.80
69	12/14/2001	8:00:00	10.18	12.1	1.37	8.81
70	12/14/2001	9:00:00	10.18	12.09	1.37	8.81
71	12/14/2001	10:00:00	10.15	12.19	1.37	8.78
72	12/14/2001	11:00:00	10.11	12.17	1.36	8.75
73	12/14/2001	12:00:00	10.09	12.07	1.36	8.73
74	12/14/2001	13:00:00	10.02	12.11	1.36	8.66
75	12/14/2001	14:00:00	10	12.18	1.36	8.64
76	12/14/2001	15:00:00	9.98	12.06	1.36	8.62
77	12/14/2001	16:00:00	9.96	12.04	1.36	8.60
78	12/14/2001	17:00:00	9.93	12.05	1.36	8.57
79	12/14/2001	18:00:00	9.93	12.07	1.36	8.57
80	12/14/2001	19:00:00	9.93	12.08	1.36	8.57
81	12/14/2001	20:00:00	9.9	12.21	1.35	8.55
82	12/14/2001	21:00:00	9.93	12.12	1.35	8.58
83	12/14/2001	22:00:00	9.94	12.03	1.35	8.59
84	12/14/2001	23:00:00	9.99	12.09	1.35	8.64
85	12/15/2001	0:00:00	10	12.09	1.35	8.65
86	12/15/2001	1:00:00	10.05	12.05	1.35	8.70
87	12/15/2001	2:00:00	10.09	12.07	1.35	8.74

88	12/15/2001	3:00:00	10.13	12.07	1.35	8.78
89	12/15/2001	4:00:00	10.15	12.06	1.35	8.80
90	12/15/2001	5:00:00	10.2	12.09	1.34	8.86
91	12/15/2001	6:00:00	10.26	12.09	1.34	8.92
92	12/15/2001	7:00:00	10.33	12.07	1.34	8.99
93	12/15/2001	8:00:00	10.38	12.08	1.34	9.04
94	12/15/2001	9:00:00	10.43	12.08	1.34	9.09
95	12/15/2001	10:00:00	10.44	12.11	1.34	9.10
96	12/15/2001	11:00:00	10.5	12.08	1.34	9.16
97	12/15/2001	12:00:00	10.5	12.09	1.34	9.16
98	12/15/2001	13:00:00	10.5	12.07	1.34	9.16
99	12/15/2001	14:00:00	10.5	12.05	1.34	9.16
100	12/15/2001	15:00:00	10.5	12.04	1.33	9.17
101	12/15/2001	16:00:00	10.54	12.14	1.33	9.21
102	12/15/2001	17:00:00	10.57	12.07	1.33	9.24
103	12/15/2001	18:00:00	10.62	12.07	1.33	9.29
104	12/15/2001	19:00:00	10.67	12.05	1.33	9.34
105	12/15/2001	20:00:00	10.66	12.07	1.33	9.33
106	12/15/2001	21:00:00	10.68	12.04	1.33	9.35
107	12/15/2001	22:00:00	10.66	12.01	1.33	9.33
108	12/15/2001	23:00:00	10.68	12.13	1.33	9.35
109	12/16/2001	0:00:00	10.66	12.04	1.32	9.34
110	12/16/2001	1:00:00	10.68	12.08	1.32	9.36
111	12/16/2001	2:00:00	10.66	12.05	1.32	9.34
112	12/16/2001	3:00:00	10.69	12.05	1.32	9.37
113	12/16/2001	4:00:00	10.69	12.06	1.32	9.37
114	12/16/2001	5:00:00	10.73	12.16	1.32	9.41
115	12/16/2001	6:00:00	10.72	12.01	1.32	9.40
116	12/16/2001	7:00:00	10.72	12.05	1.32	9.40
117	12/16/2001	8:00:00	10.75	12.04	1.32	9.43
118	12/16/2001	9:00:00	10.76	12.17	1.31	9.45
119	12/16/2001	10:00:00	10.73	12.08	1.31	9.42
120	12/16/2001	11:00:00	10.73	12.07	1.31	9.42
121	12/16/2001	12:00:00	10.69	12.21	1.31	9.38
122	12/16/2001	13:00:00	10.66	12.07	1.31	9.35
123	12/16/2001	14:00:00	10.63	12.02	1.31	9.32
124	12/16/2001	15:00:00	10.65	12.08	1.31	9.34
125	12/16/2001	16:00:00	10.63	12.1	1.31	9.32
126	12/16/2001	17:00:00	10.64	12.17	1.31	9.33
127	12/16/2001	18:00:00	10.61	12.19	1.31	9.30
128	12/16/2001	19:00:00	10.6	12.05	1.30	9.30
129	12/16/2001	20:00:00	10.63	12.09	1.30	9.33
130	12/16/2001	21:00:00	10.59	12.1	1.30	9.29
131	12/16/2001	22:00:00	10.57	12.01	1.30	9.27
132	12/16/2001	23:00:00	10.55	12.17	1.30	9.25
133	12/17/2001	0:00:00	10.52	12.03	1.30	9.22
134	12/17/2001	1:00:00	10.5	12.1	1.30	9.20
135	12/17/2001	2:00:00	10.48	12.1	1.30	9.18
136	12/17/2001	3:00:00	10.46	12.05	1.30	9.16
137	12/17/2001	4:00:00	10.43	12.01	1.29	9.14
138	12/17/2001	5:00:00	10.39	12.01	1.29	9.10
139	12/17/2001	6:00:00	10.39	12.04	1.29	9.10

140	12/17/2001	7:00:00	10.37	12.07	1.29	9.08
141	12/17/2001	8:00:00	10.36	12.05	1.29	9.07
142	12/17/2001	9:00:00	10.31	12	1.29	9.02
143	12/17/2001	10:00:00	10.29	12	1.29	9.00
144	12/17/2001	11:00:00	10.24	12.14	1.29	8.95
145	12/17/2001	12:00:00	10.17	12.01	1.29	8.88
146	12/17/2001	13:00:00	10.12	12.05	1.28	8.84
147	12/17/2001	14:00:00	10.05	12.01	1.28	8.77
148	12/17/2001	15:00:00	10	12.01	1.28	8.72
149	12/17/2001	16:00:00	9.96	12.02	1.28	8.68
150	12/17/2001	17:00:00	9.96	12.05	1.28	8.68
151	12/17/2001	18:00:00	9.9	12.04	1.28	8.62
152	12/17/2001	19:00:00	9.87	12.05	1.28	8.59
153	12/17/2001	20:00:00	9.83	12.17	1.28	8.55
154	12/17/2001	21:00:00	9.79	12.07	1.28	8.51
155	12/17/2001	22:00:00	9.76	12.09	1.28	8.48
156	12/17/2001	23:00:00	9.67	12.05	1.27	8.40
157	12/18/2001	0:00:00	9.65	12.07	1.27	8.38
158	12/18/2001	1:00:00	9.6	12	1.27	8.33
159	12/18/2001	2:00:00	9.53	12.01	1.27	8.26
160	12/18/2001	3:00:00	9.47	12.12	1.27	8.20
161	12/18/2001	4:00:00	9.43	12.02	1.27	8.16
162	12/18/2001	5:00:00	9.41	12.01	1.27	8.14
163	12/18/2001	6:00:00	9.47	12	1.27	8.20
164	12/18/2001	7:00:00	9.51	12.05	1.27	8.24
165	12/18/2001	8:00:00	9.58	12.07	1.26	8.32
166	12/18/2001	9:00:00	9.63	11.97	1.26	8.37
167	12/18/2001	10:00:00	9.67	12.04	1.26	8.41
168	12/18/2001	11:00:00	9.7	11.97	1.26	8.44
169	12/18/2001	12:00:00	9.7	12.01	1.26	8.44
170	12/18/2001	13:00:00	9.74	12.03	1.26	8.48
171	12/18/2001	14:00:00	9.74	11.99	1.26	8.48
172	12/18/2001	15:00:00	9.77	12.01	1.26	8.51
173	12/18/2001	16:00:00	9.82	12.04	1.26	8.56
174	12/18/2001	17:00:00	9.86	12.02	1.25	8.61
175	12/18/2001	18:00:00	9.87	12.01	1.25	8.62
176	12/18/2001	19:00:00	9.9	12.09	1.25	8.65
177	12/18/2001	20:00:00	9.91	11.99	1.25	8.66
178	12/18/2001	21:00:00	9.95	12.16	1.25	8.70
179	12/18/2001	22:00:00	9.96	11.97	1.25	8.71
180	12/18/2001	23:00:00	9.98	12.03	1.25	8.73
181	12/19/2001	0:00:00	9.99	11.97	1.25	8.74
182	12/19/2001	1:00:00	10	11.99	1.25	8.75
183	12/19/2001	2:00:00	10.04	12.03	1.25	8.79
184	12/19/2001	3:00:00	10.06	11.99	1.24	8.82
185	12/19/2001	4:00:00	10.06	12.11	1.24	8.82
186	12/19/2001	5:00:00	10.08	11.99	1.24	8.84
187	12/19/2001	6:00:00	10.08	12.01	1.24	8.84
188	12/19/2001	7:00:00	10.09	12.01	1.24	8.85
189	12/19/2001	8:00:00	10.11	12	1.24	8.87
190	12/19/2001	9:00:00	10.13	12.03	1.24	8.89
191	12/19/2001	10:00:00	10.12	11.96	1.24	8.88

192	12/19/2001	11:00:00	10.08	12.02	1.24	8.84
193	12/19/2001	12:00:00	10.05	12	1.23	8.82
194	12/19/2001	13:00:00	10.04	11.97	1.23	8.81
195	12/19/2001	14:00:00	10	12	1.23	8.77
196	12/19/2001	15:00:00	10	12.02	1.23	8.77
197	12/19/2001	16:00:00	9.98	12.05	1.23	8.75
198	12/19/2001	17:00:00	9.95	11.99	1.23	8.72
199	12/19/2001	18:00:00	9.95	11.95	1.23	8.72
200	12/19/2001	19:00:00	9.94	12.01	1.23	8.71
201	12/19/2001	20:00:00	9.93	11.97	1.23	8.70
202	12/19/2001	21:00:00	9.91	12.03	1.22	8.69
203	12/19/2001	22:00:00	9.89	11.99	1.22	8.67
204	12/19/2001	23:00:00	9.87	12.13	1.22	8.65
205	12/20/2001	0:00:00	9.86	12.01	1.22	8.64
206	12/20/2001	1:00:00	9.84	12	1.22	8.62
207	12/20/2001	2:00:00	9.84	11.98	1.22	8.62
208	12/20/2001	3:00:00	9.84	11.97	1.22	8.62
209	12/20/2001	4:00:00	9.85	12.12	1.22	8.63
210	12/20/2001	5:00:00	9.88	11.99	1.22	8.66
211	12/20/2001	6:00:00	9.93	12	1.22	8.71
212	12/20/2001	7:00:00	9.92	11.94	1.21	8.71
213	12/20/2001	8:00:00	9.97	11.99	1.21	8.76
214	12/20/2001	9:00:00	10.02	11.97	1.21	8.81
215	12/20/2001	10:00:00	10.04	12.01	1.21	8.83
216	12/20/2001	11:00:00	10.05	11.99	1.21	8.84
217	12/20/2001	12:00:00	10.01	11.93	1.21	8.80
218	12/20/2001	13:00:00	10.01	12.03	1.21	8.80
219	12/20/2001	14:00:00	10.02	11.97	1.21	8.81
220	12/20/2001	15:00:00	10.05	11.97	1.21	8.84
221	12/20/2001	16:00:00	10.07	11.99	1.20	8.87
222	12/20/2001	17:00:00	10.09	12.01	1.20	8.89
223	12/20/2001	18:00:00	10.1	12.01	1.20	8.90
224	12/20/2001	19:00:00	10.1	11.99	1.20	8.90
225	12/20/2001	20:00:00	10.11	12.05	1.20	8.91
226	12/20/2001	21:00:00	10.09	12.05	1.20	8.89
227	12/20/2001	22:00:00	10.08	11.97	1.20	8.88
228	12/20/2001	23:00:00	10.08	11.96	1.20	8.88
229	12/21/2001	0:00:00	10.08	11.95	1.20	8.88
230	12/21/2001	1:00:00	10.08	12.01	1.19	8.89
231	12/21/2001	2:00:00	10.08	11.97	1.19	8.89
232	12/21/2001	3:00:00	10.12	11.96	1.19	8.93
233	12/21/2001	4:00:00	10.13	12	1.19	8.94
234	12/21/2001	5:00:00	10.16	12.07	1.19	8.97
235	12/21/2001	6:00:00	10.15	11.97	1.19	8.96
236	12/21/2001	7:00:00	10.18	11.94	1.19	8.99
237	12/21/2001	8:00:00	10.21	12.07	1.19	9.02
238	12/21/2001	9:00:00	10.23	11.93	1.19	9.04
239	12/21/2001	10:00:00	10.24	12.02	1.19	9.05
240	12/21/2001	11:00:00	10.24	11.98	1.18	9.06
241	12/21/2001	12:00:00	10.23	12	1.18	9.05
242	12/21/2001	13:00:00	10.23	11.92	1.18	9.05
243	12/21/2001	14:00:00	10.24	12.05	1.18	9.06

244	12/21/2001	15:00:00	10.29	11.96	1.18	9.11
245	12/21/2001	16:00:00	10.3	11.93	1.18	9.12
246	12/21/2001	17:00:00	10.34	11.94	1.18	9.16
247	12/21/2001	18:00:00	10.37	11.98	1.18	9.19
248	12/21/2001	19:00:00	10.4	11.96	1.18	9.22
249	12/21/2001	20:00:00	10.42	11.96	1.17	9.25
250	12/21/2001	21:00:00	10.45	11.99	1.17	9.28
251	12/21/2001	22:00:00	10.44	11.95	1.17	9.27
252	12/21/2001	23:00:00	10.46	11.97	1.17	9.29
253	12/22/2001	0:00:00	10.47	11.99	1.17	9.30
254	12/22/2001	1:00:00	10.49	11.93	1.17	9.32
255	12/22/2001	2:00:00	10.5	12.01	1.17	9.33
256	12/22/2001	3:00:00	10.52	11.96	1.17	9.35
257	12/22/2001	4:00:00	10.53	11.94	1.17	9.36
258	12/22/2001	5:00:00	10.54	12.09	1.17	9.37
259	12/22/2001	6:00:00	10.54	12.09	1.16	9.38
260	12/22/2001	7:00:00	10.55	11.94	1.16	9.39
261	12/22/2001	8:00:00	10.57	11.94	1.16	9.41
262	12/22/2001	9:00:00	10.6	12	1.16	9.44
263	12/22/2001	10:00:00	10.61	11.99	1.16	9.45
264	12/22/2001	11:00:00	10.58	12	1.16	9.42
265	12/22/2001	12:00:00	10.56	11.93	1.16	9.40
266	12/22/2001	13:00:00	10.53	11.95	1.16	9.37
267	12/22/2001	14:00:00	10.53	12.05	1.16	9.37
268	12/22/2001	15:00:00	10.5	11.94	1.15	9.35
269	12/22/2001	16:00:00	10.51	11.97	1.15	9.36
270	12/22/2001	17:00:00	10.5	11.97	1.15	9.35
271	12/22/2001	18:00:00	10.51	12.07	1.15	9.36
272	12/22/2001	19:00:00	10.48	11.93	1.15	9.33
273	12/22/2001	20:00:00	10.48	12	1.15	9.33
274	12/22/2001	21:00:00	10.49	11.96	1.15	9.34
275	12/22/2001	22:00:00	10.48	12.01	1.15	9.33
276	12/22/2001	23:00:00	10.46	11.99	1.15	9.31
277	12/23/2001	0:00:00	10.44	12.05	1.14	9.30
278	12/23/2001	1:00:00	10.42	12	1.14	9.28
279	12/23/2001	2:00:00	10.43	12.03	1.14	9.29
280	12/23/2001	3:00:00	10.4	11.93	1.14	9.26
281	12/23/2001	4:00:00	10.38	11.99	1.14	9.24
282	12/23/2001	5:00:00	10.39	11.92	1.14	9.25
283	12/23/2001	6:00:00	10.35	11.92	1.14	9.21
284	12/23/2001	7:00:00	10.33	11.97	1.14	9.19
285	12/23/2001	8:00:00	10.33	11.98	1.14	9.19
286	12/23/2001	9:00:00	10.33	11.96	1.14	9.19
287	12/23/2001	10:00:00	10.3	11.91	1.13	9.17
288	12/23/2001	11:00:00	10.26	11.96	1.13	9.13
289	12/23/2001	12:00:00	10.19	11.91	1.13	9.06
290	12/23/2001	13:00:00	10.16	11.89	1.13	9.03
291	12/23/2001	14:00:00	10.14	12.05	1.13	9.01
292	12/23/2001	15:00:00	10.14	11.98	1.13	9.01
293	12/23/2001	16:00:00	10.12	12.06	1.13	8.99
294	12/23/2001	17:00:00	10.09	11.95	1.13	8.96
295	12/23/2001	18:00:00	10.08	12.05	1.13	8.95

296	12/23/2001	19:00:00	10.06	11.89	1.12	8.94
297	12/23/2001	20:00:00	10.02	11.91	1.12	8.90
298	12/23/2001	21:00:00	9.99	11.89	1.12	8.87
299	12/23/2001	22:00:00	9.96	11.89	1.12	8.84
300	12/23/2001	23:00:00	9.91	12.02	1.12	8.79
301	12/24/2001	0:00:00	9.93	11.92	1.12	8.81
302	12/24/2001	1:00:00	9.88	11.88	1.12	8.76
303	12/24/2001	2:00:00	9.89	12.01	1.12	8.77
304	12/24/2001	3:00:00	9.88	11.92	1.12	8.76
305	12/24/2001	4:00:00	9.87	11.98	1.11	8.76
306	12/24/2001	5:00:00	9.88	11.87	1.11	8.77
307	12/24/2001	6:00:00	9.89	12.02	1.11	8.78
308	12/24/2001	7:00:00	9.87	11.89	1.11	8.76
309	12/24/2001	8:00:00	9.92	11.97	1.11	8.81
310	12/24/2001	9:00:00	9.92	11.94	1.11	8.81
311	12/24/2001	10:00:00	9.91	11.93	1.11	8.80
312	12/24/2001	11:00:00	9.89	11.93	1.11	8.78
313	12/24/2001	12:00:00	9.87	12.01	1.11	8.76
314	12/24/2001	13:00:00	9.87	12.04	1.11	8.76
315	12/24/2001	14:00:00	9.87	11.91	1.10	8.77
316	12/24/2001	15:00:00	9.87	11.86	1.10	8.77
317	12/24/2001	16:00:00	9.87	11.93	1.10	8.77
318	12/24/2001	17:00:00	9.89	11.93	1.10	8.79
319	12/24/2001	18:00:00	9.92	11.89	1.10	8.82
320	12/24/2001	19:00:00	9.94	11.92	1.10	8.84
321	12/24/2001	20:00:00	9.98	11.87	1.10	8.88
322	12/24/2001	21:00:00	10.01	11.89	1.10	8.91
323	12/24/2001	22:00:00	10.01	11.93	1.10	8.91
324	12/24/2001	23:00:00	10.01	12.05	1.09	8.92
325	12/25/2001	0:00:00	10.01	11.89	1.09	8.92
326	12/25/2001	1:00:00	10.04	11.88	1.09	8.95
327	12/25/2001	2:00:00	10.06	11.86	1.09	8.97
328	12/25/2001	3:00:00	10.05	11.99	1.09	8.96
329	12/25/2001	4:00:00	10.07	11.88	1.09	8.98
330	12/25/2001	5:00:00	10.1	11.87	1.09	9.01
331	12/25/2001	6:00:00	10.1	11.86	1.09	9.01
332	12/25/2001	7:00:00	10.12	11.85	1.09	9.03
333	12/25/2001	8:00:00	10.16	11.89	1.08	9.08
334	12/25/2001	9:00:00	10.18	11.88	1.08	9.10
335	12/25/2001	10:00:00	10.16	11.85	1.08	9.08
336	12/25/2001	11:00:00	10.14	11.83	1.08	9.06
337	12/25/2001	12:00:00	10.1	11.88	1.08	9.02
338	12/25/2001	13:00:00	10.11	11.89	1.08	9.03
339	12/25/2001	14:00:00	10.09	11.85	1.08	9.01
340	12/25/2001	15:00:00	10.07	11.85	1.08	8.99
341	12/25/2001	16:00:00	10.08	11.83	1.08	9.00
342	12/25/2001	17:00:00	10.07	11.87	1.08	8.99
343	12/25/2001	18:00:00	10.09	12.01	1.07	9.02
344	12/25/2001	19:00:00	10.11	11.85	1.07	9.04
345	12/25/2001	20:00:00	10.12	11.87	1.07	9.05
346	12/25/2001	21:00:00	10.11	11.87	1.07	9.04
347	12/25/2001	22:00:00	10.11	11.85	1.07	9.04

348	12/25/2001	23:00:00	10.11	11.86	1.07	9.04
349	12/26/2001	0:00:00	10.08	11.89	1.07	9.01
350	12/26/2001	1:00:00	10.06	11.79	1.07	8.99
351	12/26/2001	2:00:00	10.05	11.85	1.07	8.98
352	12/26/2001	3:00:00	10.03	11.93	1.06	8.97
353	12/26/2001	4:00:00	9.99	11.85	1.06	8.93
354	12/26/2001	5:00:00	9.99	11.84	1.06	8.93
355	12/26/2001	6:00:00	9.99	11.93	1.06	8.93
356	12/26/2001	7:00:00	10.01	11.83	1.06	8.95
357	12/26/2001	8:00:00	10.03	11.96	1.06	8.97
358	12/26/2001	9:00:00	10	11.89	1.06	8.94
359	12/26/2001	10:00:00	9.95	11.87	1.06	8.89
360	12/26/2001	11:00:00	9.92	12.01	1.06	8.86
361	12/26/2001	12:00:00	9.89	11.81	1.05	8.84
362	12/26/2001	13:00:00	9.85	11.85	1.05	8.80
363	12/26/2001	14:00:00	9.83	11.83	1.05	8.78
364	12/26/2001	15:00:00	9.81	11.86	1.05	8.76
365	12/26/2001	16:00:00	9.8	11.87	1.05	8.75
366	12/26/2001	17:00:00	9.78	11.86	1.05	8.73
367	12/26/2001	18:00:00	9.78	11.83	1.05	8.73
368	12/26/2001	19:00:00	9.79	11.81	1.05	8.74
369	12/26/2001	20:00:00	9.8	11.84	1.05	8.75
370	12/26/2001	21:00:00	9.8	11.88	1.05	8.75
371	12/26/2001	22:00:00	9.81	11.88	1.04	8.77
372	12/26/2001	23:00:00	9.82	11.81	1.04	8.78
373	12/27/2001	0:00:00	9.81	11.95	1.04	8.77
374	12/27/2001	1:00:00	9.8	11.96	1.04	8.76
375	12/27/2001	2:00:00	9.8	11.83	1.04	8.76
376	12/27/2001	3:00:00	9.8	11.78	1.04	8.76
377	12/27/2001	4:00:00	9.78	11.83	1.04	8.74
378	12/27/2001	5:00:00	9.77	11.79	1.04	8.73
379	12/27/2001	6:00:00	9.77	11.85	1.04	8.73
380	12/27/2001	7:00:00	9.81	11.8	1.03	8.78
381	12/27/2001	8:00:00	9.81	11.81	1.03	8.78
382	12/27/2001	9:00:00	9.83	11.89	1.03	8.80
383	12/27/2001	10:00:00	9.8	11.81	1.03	8.77
384	12/27/2001	11:00:00	9.79	11.89	1.03	8.76
385	12/27/2001	12:00:00	9.76	11.79	1.03	8.73
386	12/27/2001	13:00:00	9.73	11.97	1.03	8.70
387	12/27/2001	14:00:00	9.74	11.81	1.03	8.71
388	12/27/2001	15:00:00	9.74	11.94	1.03	8.71
389	12/27/2001	16:00:00	9.74	11.77	1.02	8.72
390	12/27/2001	17:00:00	9.77	11.79	1.02	8.75
391	12/27/2001	18:00:00	9.77	11.73	1.02	8.75
392	12/27/2001	19:00:00	9.79	11.76	1.02	8.77
393	12/27/2001	20:00:00	9.81	11.81	1.02	8.79
394	12/27/2001	21:00:00	9.81	11.85	1.02	8.79
395	12/27/2001	22:00:00	9.82	11.81	1.02	8.80
396	12/27/2001	23:00:00	9.83	11.77	1.02	8.81
397	12/28/2001	0:00:00	9.85	11.81	1.02	8.83
398	12/28/2001	1:00:00	9.83	11.91	1.02	8.81
399	12/28/2001	2:00:00	9.84	11.77	1.01	8.83

400	12/28/2001	3:00:00	9.84	11.76	1.01	8.83
401	12/28/2001	4:00:00	9.81	11.77	1.01	8.80
402	12/28/2001	5:00:00	9.81	11.79	1.01	8.80
403	12/28/2001	6:00:00	9.82	11.75	1.01	8.81
404	12/28/2001	7:00:00	9.79	11.75	1.01	8.78
405	12/28/2001	8:00:00	9.81	11.85	1.01	8.80
406	12/28/2001	9:00:00	9.81	11.75	1.01	8.80
407	12/28/2001	10:00:00	9.77	11.85	1.01	8.76
408	12/28/2001	11:00:00	9.75	11.81	1.00	8.75
409	12/28/2001	12:00:00	9.7	11.83	1.00	8.70
410	12/28/2001	13:00:00	9.67	11.87	1.00	8.67
411	12/28/2001	14:00:00	9.65	11.72	1.00	8.65
412	12/28/2001	15:00:00	9.65	11.81	1.00	8.65
413	12/28/2001	16:00:00	9.64	11.89	1.00	8.64
414	12/28/2001	17:00:00	9.67	11.86	1.00	8.67
415	12/28/2001	18:00:00	9.71	11.81	1.00	8.71
416	12/28/2001	19:00:00	9.73	11.75	1.00	8.73
417	12/28/2001	20:00:00	9.77	11.74	0.99	8.78
418	12/28/2001	21:00:00	9.77	11.77	0.99	8.78
419	12/28/2001	22:00:00	9.78	11.7	0.99	8.79
420	12/28/2001	23:00:00	9.77	11.92	0.99	8.78
421	12/29/2001	0:00:00	9.78	11.8	0.99	8.79
422	12/29/2001	1:00:00	9.78	11.86	0.99	8.79
423	12/29/2001	2:00:00	9.81	11.94	0.99	8.82
424	12/29/2001	3:00:00	9.8	11.68	0.99	8.81
425	12/29/2001	4:00:00	9.81	11.8	0.99	8.82
426	12/29/2001	5:00:00	9.78	11.75	0.99	8.79
427	12/29/2001	6:00:00	9.79	11.91	0.98	8.81
428	12/29/2001	7:00:00	9.78	11.75	0.98	8.80
429	12/29/2001	8:00:00	9.78	11.69	0.98	8.80
430	12/29/2001	9:00:00	9.78	11.89	0.98	8.80
431	12/29/2001	10:00:00	9.81	11.87	0.98	8.83
432	12/29/2001	11:00:00	9.79	11.89	0.98	8.81
433	12/29/2001	12:00:00	9.75	11.68	0.98	8.77
434	12/29/2001	13:00:00	9.74	11.7	0.98	8.76
435	12/29/2001	14:00:00	9.74	11.87	0.98	8.76
436	12/29/2001	15:00:00	9.76	11.69	0.97	8.79
437	12/29/2001	16:00:00	9.78	11.7	0.97	8.81
438	12/29/2001	17:00:00	9.82	11.79	0.97	8.85
439	12/29/2001	18:00:00	9.87	11.87	0.97	8.90
440	12/29/2001	19:00:00	9.9	11.89	0.97	8.93
441	12/29/2001	20:00:00	9.94	11.7	0.97	8.97
442	12/29/2001	21:00:00	9.95	11.83	0.97	8.98
443	12/29/2001	22:00:00	9.96	11.7	0.97	8.99
444	12/29/2001	23:00:00	9.97	11.67	0.97	9.00
445	12/30/2001	0:00:00	9.97	11.87	0.96	9.01
446	12/30/2001	1:00:00	9.98	11.81	0.96	9.02
447	12/30/2001	2:00:00	10.01	11.81	0.96	9.05
448	12/30/2001	3:00:00	10.03	11.72	0.96	9.07
449	12/30/2001	4:00:00	10.05	11.85	0.96	9.09
450	12/30/2001	5:00:00	10.05	11.77	0.96	9.09
451	12/30/2001	6:00:00	10.06	11.67	0.96	9.10

452	12/30/2001	7:00:00	10.08	11.75	0.96	9.12
453	12/30/2001	8:00:00	10.09	11.84	0.96	9.13
454	12/30/2001	9:00:00	10.12	11.75	0.96	9.16
455	12/30/2001	10:00:00	10.13	11.66	0.95	9.18
456	12/30/2001	11:00:00	10.12	11.71	0.95	9.17
457	12/30/2001	12:00:00	10.09	11.84	0.95	9.14
458	12/30/2001	13:00:00	10.08	11.71	0.95	9.13
459	12/30/2001	14:00:00	10.07	11.83	0.95	9.12
460	12/30/2001	15:00:00	10.08	11.79	0.95	9.13
461	12/30/2001	16:00:00	10.09	11.75	0.95	9.14
462	12/30/2001	17:00:00	10.08	11.66	0.95	9.13
463	12/30/2001	18:00:00	10.11	11.84	0.95	9.16
464	12/30/2001	19:00:00	10.12	11.64	0.94	9.18
465	12/30/2001	20:00:00	10.15	11.62	0.94	9.21
466	12/30/2001	21:00:00	10.15	11.69	0.94	9.21
467	12/30/2001	22:00:00	10.15	11.81	0.94	9.21
468	12/30/2001	23:00:00	10.17	11.87	0.94	9.23
469	12/31/2001	0:00:00	10.16	11.79	0.94	9.22
470	12/31/2001	1:00:00	10.16	11.73	0.94	9.22
471	12/31/2001	2:00:00	10.18	11.81	0.94	9.24
472	12/31/2001	3:00:00	10.22	11.68	0.94	9.28
473	12/31/2001	4:00:00	10.17	11.65	0.93	9.24
474	12/31/2001	5:00:00	10.17	11.79	0.93	9.24
475	12/31/2001	6:00:00	10.19	11.62	0.93	9.26
476	12/31/2001	7:00:00	10.18	11.75	0.93	9.25
477	12/31/2001	8:00:00	10.21	11.62	0.93	9.28
478	12/31/2001	9:00:00	10.23	11.75	0.93	9.30
479	12/31/2001	10:00:00	10.23	11.83	0.93	9.30
480	12/31/2001	11:00:00	10.2	11.81	0.93	9.27
481	12/31/2001	12:00:00	10.17	11.64	0.93	9.24
482	12/31/2001	13:00:00	10.15	11.76	0.93	9.22
483	12/31/2001	14:00:00	10.14	11.61	0.92	9.22
484	12/31/2001	15:00:00	10.12	11.63	0.92	9.20
485	12/31/2001	16:00:00	10.12	11.6	0.92	9.20
486	12/31/2001	17:00:00	10.14	11.59	0.92	9.22
487	12/31/2001	18:00:00	10.18	11.61	0.92	9.26
488	12/31/2001	19:00:00	10.18	11.61	0.92	9.26
489	12/31/2001	20:00:00	10.19	11.61	0.92	9.27
490	12/31/2001	21:00:00	10.18	11.81	0.92	9.26
491	12/31/2001	22:00:00	10.2	11.77	0.92	9.28
492	12/31/2001	23:00:00	10.17	11.62	0.91	9.26
493	01/01/2002	0:00:00	10.19	11.63	0.91	9.28
494	01/01/2002	1:00:00	10.2	11.79	0.91	9.29
495	01/01/2002	2:00:00	10.2	11.6	0.91	9.29
496	01/01/2002	3:00:00	10.21	11.6	0.91	9.30
497	01/01/2002	4:00:00	10.2	11.59	0.91	9.29
498	01/01/2002	5:00:00	10.19	11.61	0.91	9.28
499	01/01/2002	6:00:00	10.21	11.59	0.91	9.30
500	01/01/2002	7:00:00	10.23	11.75	0.91	9.32
501	01/01/2002	8:00:00	10.24	11.62	0.91	9.34
502	01/01/2002	9:00:00	10.26	11.75	0.90	9.36
503	01/01/2002	10:00:00	10.27	11.64	0.90	9.37

504	01/01/2002	11:00:00	10.26	11.66	0.90	9.36
505	01/01/2002	12:00:00	10.23	11.63	0.90	9.33
506	01/01/2002	13:00:00	10.22	11.58	0.90	9.32
507	01/01/2002	14:00:00	10.22	11.6	0.90	9.32
508	01/01/2002	15:00:00	10.23	11.6	0.90	9.33
509	01/01/2002	16:00:00	10.24	11.6	0.90	9.34
510	01/01/2002	17:00:00	10.26	11.59	0.90	9.36
511	01/01/2002	18:00:00	10.28	11.59	0.89	9.39
512	01/01/2002	19:00:00	10.31	11.61	0.89	9.42
513	01/01/2002	20:00:00	10.34	11.75	0.89	9.45
514	01/01/2002	21:00:00	10.34	11.64	0.89	9.45
515	01/01/2002	22:00:00	10.37	11.59	0.89	9.48
516	01/01/2002	23:00:00	10.36	11.73	0.89	9.47
517	01/02/2002	0:00:00	10.36	11.57	0.89	9.47
518	01/02/2002	1:00:00	10.38	11.63	0.89	9.49
519	01/02/2002	2:00:00	10.38	11.52	0.89	9.49
520	01/02/2002	3:00:00	10.43	11.66	0.88	9.55
521	01/02/2002	4:00:00	10.4	11.73	0.88	9.52
522	01/02/2002	5:00:00	10.43	11.67	0.88	9.55
523	01/02/2002	6:00:00	10.42	11.59	0.88	9.54
524	01/02/2002	7:00:00	10.43	11.56	0.88	9.55
525	01/02/2002	8:00:00	10.46	11.65	0.88	9.58
526	01/02/2002	9:00:00	10.48	11.55	0.88	9.60
527	01/02/2002	10:00:00	10.47	11.55	0.88	9.59
528	01/02/2002	11:00:00	10.46	11.55	0.88	9.58
529	01/02/2002	12:00:00	10.43	11.7	0.88	9.55
530	01/02/2002	13:00:00	10.39	11.57	0.87	9.52
531	01/02/2002	14:00:00	10.37	11.75	0.87	9.50
532	01/02/2002	15:00:00	10.35	11.7	0.87	9.48
533	01/02/2002	16:00:00	10.36	11.71	0.87	9.49
534	01/02/2002	17:00:00	10.35	11.66	0.87	9.48
535	01/02/2002	18:00:00	10.36	11.6	0.87	9.49
536	01/02/2002	19:00:00	10.36	11.73	0.87	9.49
537	01/02/2002	20:00:00	10.33	11.73	0.87	9.46
538	01/02/2002	21:00:00	10.34	11.8	0.87	9.47
539	01/02/2002	22:00:00	10.29	11.78	0.86	9.43
540	01/02/2002	23:00:00	10.32	11.57	0.86	9.46
541	01/03/2002	0:00:00	10.29	11.65	0.86	9.43
542	01/03/2002	1:00:00	10.26	11.55	0.86	9.40
543	01/03/2002	2:00:00	10.27	11.69	0.86	9.41
544	01/03/2002	3:00:00	10.2	11.71	0.86	9.34
545	01/03/2002	4:00:00	10.22	11.69	0.86	9.36
546	01/03/2002	5:00:00	10.22	11.52	0.86	9.36
547	01/03/2002	6:00:00	10.19	11.62	0.86	9.33
548	01/03/2002	7:00:00	10.19	11.58	0.85	9.34
549	01/03/2002	8:00:00	10.22	11.65	0.85	9.37
550	01/03/2002	9:00:00	10.21	11.67	0.85	9.36
551	01/03/2002	10:00:00	10.18	11.48	0.85	9.33
552	01/03/2002	11:00:00	10.14	11.71	0.85	9.29
553	01/03/2002	12:00:00	10.1	11.58	0.85	9.25
554	01/03/2002	13:00:00	10.04	11.51	0.85	9.19
555	01/03/2002	14:00:00	10.02	11.52	0.85	9.17

556	01/03/2002	15:00:00	10.01	11.63	0.85	9.16
557	01/03/2002	16:00:00	10	11.5	0.85	9.15
558	01/03/2002	17:00:00	10.01	11.7	0.84	9.17
559	01/03/2002	18:00:00	10.02	11.48	0.84	9.18
560	01/03/2002	19:00:00	10.03	11.65	0.84	9.19
561	01/03/2002	20:00:00	10.04	11.48	0.84	9.20
562	01/03/2002	21:00:00	10.06	11.59	0.84	9.22
563	01/03/2002	22:00:00	10.05	11.52	0.84	9.21
564	01/03/2002	23:00:00	10.07	11.4	0.84	9.23
565	01/04/2002	0:00:00	10.05	11.48	0.84	9.21
566	01/04/2002	1:00:00	10.03	11.47	0.84	9.19
567	01/04/2002	2:00:00	10.05	11.48	0.83	9.22
568	01/04/2002	3:00:00	10.09	11.63	0.83	9.26
569	01/04/2002	4:00:00	10.08	11.49	0.83	9.25
570	01/04/2002	5:00:00	10.13	11.6	0.83	9.30
571	01/04/2002	6:00:00	10.15	11.55	0.83	9.32
572	01/04/2002	7:00:00	10.19	11.43	0.83	9.36
573	01/04/2002	8:00:00	10.21	11.65	0.83	9.38
574	01/04/2002	9:00:00	10.24	11.51	0.83	9.41
575	01/04/2002	10:00:00	10.26	11.46	0.83	9.43
576	01/04/2002	11:00:00	10.25	11.45	0.82	9.43
577	01/04/2002	12:00:00	10.23	11.55	0.82	9.41
578	01/04/2002	13:00:00	10.2	11.59	0.82	9.38
579	01/04/2002	14:00:00	10.19	11.46	0.82	9.37
580	01/04/2002	15:00:00	10.19	11.57	0.82	9.37
581	01/04/2002	16:00:00	10.2	11.57	0.82	9.38
582	01/04/2002	17:00:00	10.2	11.61	0.82	9.38
583	01/04/2002	18:00:00	10.2	11.67	0.82	9.38
584	01/04/2002	19:00:00	10.21	11.64	0.82	9.39
585	01/04/2002	20:00:00	10.21	11.43	0.82	9.39
586	01/04/2002	21:00:00	10.2	11.52	0.81	9.39
587	01/04/2002	22:00:00	10.23	11.62	0.81	9.42
588	01/04/2002	23:00:00	10.21	11.57	0.81	9.40
589	01/05/2002	0:00:00	10.19	11.53	0.81	9.38
590	01/05/2002	1:00:00	10.22	11.55	0.81	9.41
591	01/05/2002	2:00:00	10.22	11.46	0.81	9.41
592	01/05/2002	3:00:00	10.23	11.68	0.81	9.42
593	01/05/2002	4:00:00	10.22	11.47	0.81	9.41
594	01/05/2002	5:00:00	10.22	11.46	0.81	9.41
595	01/05/2002	6:00:00	10.23	11.47	0.80	9.43
596	01/05/2002	7:00:00	10.24	11.63	0.80	9.44
597	01/05/2002	8:00:00	10.25	11.63	0.80	9.45
598	01/05/2002	9:00:00	10.26	11.52	0.80	9.46
599	01/05/2002	10:00:00	10.27	11.54	0.80	9.47
600	01/05/2002	11:00:00	10.26	11.58	0.80	9.46
601	01/05/2002	12:00:00	10.24	11.61	0.80	9.44
602	01/05/2002	13:00:00	10.2	11.63	0.80	9.40
603	01/05/2002	14:00:00	10.19	11.45	0.80	9.39
604	01/05/2002	15:00:00	10.17	11.6	0.79	9.38
605	01/05/2002	16:00:00	10.15	11.64	0.79	9.36
606	01/05/2002	17:00:00	10.15	11.45	0.79	9.36
607	01/05/2002	18:00:00	10.18	11.47	0.79	9.39

608	01/05/2002	19:00:00	10.18	11.35	0.79	9.39
609	01/05/2002	20:00:00	10.19	11.62	0.79	9.40
610	01/05/2002	21:00:00	10.16	11.35	0.79	9.37
611	01/05/2002	22:00:00	10.16	11.39	0.79	9.37
612	01/05/2002	23:00:00	10.13	11.49	0.79	9.34
613	01/06/2002	0:00:00	10.12	11.71	0.79	9.33
614	01/06/2002	1:00:00	10.12	11.56	0.78	9.34
615	01/06/2002	2:00:00	10.11	11.56	0.78	9.33
616	01/06/2002	3:00:00	10.1	11.54	0.78	9.32
617	01/06/2002	4:00:00	10.07	11.51	0.78	9.29
618	01/06/2002	5:00:00	10.06	11.6	0.78	9.28
619	01/06/2002	6:00:00	10.06	11.49	0.78	9.28
620	01/06/2002	7:00:00	10.06	11.55	0.78	9.28
621	01/06/2002	8:00:00	10.02	11.39	0.78	9.24
622	01/06/2002	9:00:00	10.01	11.41	0.78	9.23
623	01/06/2002	10:00:00	10.01	11.57	0.77	9.24
624	01/06/2002	11:00:00	9.95	11.41	0.77	9.18
625	01/06/2002	12:00:00	9.9	11.49	0.77	9.13
626	01/06/2002	13:00:00	9.85	11.52	0.77	9.08
627	01/06/2002	14:00:00	9.77	11.39	0.77	9.00
628	01/06/2002	15:00:00	9.67	11.58	0.77	8.90
629	01/06/2002	16:00:00	9.6	11.6	0.77	8.83
630	01/06/2002	17:00:00	9.56	11.52	0.77	8.79
631	01/06/2002	18:00:00	9.47	11.38	0.77	8.70
632	01/06/2002	19:00:00	9.5	11.34	0.76	8.74
633	01/06/2002	20:00:00	9.49	11.35	0.76	8.73
634	01/06/2002	21:00:00	9.49	11.63	0.76	8.73
635	01/06/2002	22:00:00	9.51	11.55	0.76	8.75
636	01/06/2002	23:00:00	9.49	11.43	0.76	8.73
637	01/07/2002	0:00:00	9.52	11.54	0.76	8.76
638	01/07/2002	1:00:00	9.53	11.5	0.76	8.77
639	01/07/2002	2:00:00	9.56	11.33	0.76	8.80
640	01/07/2002	3:00:00	9.58	11.52	0.76	8.82
641	01/07/2002	4:00:00	9.58	11.43	0.76	8.82
642	01/07/2002	5:00:00	9.58	11.51	0.75	8.83
643	01/07/2002	6:00:00	9.6	11.55	0.75	8.85
644	01/07/2002	7:00:00	9.62	11.58	0.75	8.87
645	01/07/2002	8:00:00	9.64	11.58	0.75	8.89
646	01/07/2002	9:00:00	9.65	11.35	0.75	8.90
647	01/07/2002	10:00:00	9.65	11.57	0.75	8.90
648	01/07/2002	11:00:00	9.65	11.43	0.75	8.90
649	01/07/2002	12:00:00	9.65	11.32	0.75	8.90
650	01/07/2002	13:00:00	9.64	11.42	0.75	8.89
651	01/07/2002	14:00:00	9.65	11.45	0.74	8.91
652	01/07/2002	15:00:00	9.66	11.39	0.74	8.92
653	01/07/2002	16:00:00	9.68	11.51	0.74	8.94
654	01/07/2002	17:00:00	9.71	11.5	0.74	8.97
655	01/07/2002	18:00:00	9.74	11.39	0.74	9.00
656	01/07/2002	19:00:00	9.76	11.4	0.74	9.02
657	01/07/2002	20:00:00	9.81	11.47	0.74	9.07
658	01/07/2002	21:00:00	9.81	11.51	0.74	9.07
659	01/07/2002	22:00:00	9.84	11.41	0.74	9.10

660	01/07/2002	23:00:00	9.86	11.29	0.73	9.13
661	01/08/2002	0:00:00	9.87	11.37	0.73	9.14
662	01/08/2002	1:00:00	9.91	11.51	0.73	9.18
663	01/08/2002	2:00:00	9.93	11.55	0.73	9.20
664	01/08/2002	3:00:00	9.97	11.35	0.73	9.24
665	01/08/2002	4:00:00	9.98	11.52	0.73	9.25
666	01/08/2002	5:00:00	10	11.29	0.73	9.27
667	01/08/2002	6:00:00	10.03	11.52	0.73	9.30
668	01/08/2002	7:00:00	10.05	11.33	0.73	9.32
669	01/08/2002	8:00:00	10.09	11.25	0.73	9.36
670	01/08/2002	9:00:00	10.09	11.29	0.72	9.37
671	01/08/2002	10:00:00	10.12	11.45	0.72	9.40
672	01/08/2002	11:00:00	10.11	11.52	0.72	9.39

A-3 PREMEABILITY TEST



KCE ENGINEERING, INC.

RECEIVED
JUN 21 2002
ES/WMP DIV.

**STANCILLS INC. QUARRY
PERMEABILITY TESTS**

On June 4, 2002, two soil test borings were installed in the overburden at the Stancills Inc. Quarry. The first test boring, designated Well No. 1 was drilled to approximately 45 feet deep. The second boring (Well No. 2) was drilled to approximately 25 feet deep. Both test wells were installed and completed in accordance with American Society for Testing and Materials (ASTM) Standard D 6391 - 99. Four-inch diameter PVC casing was used to case the wells. No water was encountered during drilling of the test borings.

On June 5, 2002, vertical and horizontal permeability tests were conducted on the two test wells. Data was recorded in the field using the falling head method as specified in ASTM D 6391 - 99. This method was designed to determine permeability values that are the maximum possible in the vertical direction and the minimum possible for the horizontal direction.

Vertical permeability tests were conducted first. For the test on Well No. 2, the entire length of the PVC casing was filled with water. The temperature of the water was recorded in order to allow for kinematic viscosity adjustments in the calculations. The depth to water versus time was then recorded at various increments. For the vertical permeability test on Well No. 1, the PVC casing was filled to as high a depth as possible. It was not possible to fill the casing of Well No. 1 to its top due to a more permeable layer that was encountered at the bottom of this boring. Otherwise, the vertical permeability test proceeded in the same manner as for Well No. 2.

After completion of each vertical permeability test, the on-site drill rig was used to extend the depth of each test well below the bottom of the PVC casing. The wells were deepened within the inside diameter of the installed casing, to depths as specified in ASTM D 6391 - 99. Upon completion of deepening of the wells and removal of any residual water, horizontal permeability test data were obtained using the same procedures used for the vertical permeability tests.

Using the formulae in ASTM D 6391 - 99, vertical and horizontal permeability values were calculated for each well. This was accomplished by calculating the permeability for each recorded time interval and then determining the time-weighted average permeability for each test, as specified in ASTM D 6391 - 99.

STANCILLS INC. QUARRY

TIME-WEIGHTED AVERAGE
PERMEABILITY SUMMARY

WELL NO.	VERTICAL PERMEABILITY	HORIZONTAL PERMEABILITY
⁴⁵ 1 (26 [±] FT DEEP)	1.80×10^{-3} CM/SEC	2.37×10^{-3} CM/SEC
²⁵ 2 (45 [±] FT DEEP)	5.80×10^{-4} CM/SEC	1.47×10^{-4} CM/SEC

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS



WELL NO. 1

 K_1 (VERTICAL)

$$G_1 = (\pi d^2 / 11 D_1) [1 + a(D_1 / 4 b_1)]$$

$$d = 10.16 \text{ cm}$$

$$D_1 = 10.16 \text{ cm}$$

$$b_1 = 1847.1 \text{ cm} - 1393.2 \text{ cm} = 453.9 \text{ cm (STAGE 1)} = 441.2 \text{ (STAGE 2)}$$

$$a = 0$$

$$G_1 (\text{STAGE 1}) = [\pi (10.16)^2 / 11 (10.16)] = \pi (10.16) / 11 = 2.90$$

$$20 \text{ TEST DIAMETERS} = 20 \times 10.16 \text{ cm} = 203.2 \text{ * USE (MAX)}$$

$$\therefore H_1 = H + 203.2 = H_2$$

$$K_1 = \frac{0.907}{1.011} (2.90) \left[\ln \left(\frac{H_1}{H_2} \right) \right] / (t_2 - t_1) = 2.603 \times \frac{H_1}{H_2} \frac{1}{(t_2 - t_1)} \quad \text{cm/sec.}$$

t (SEC)	$t_2 - t_1$	H_1 (cm)	H_2 (cm)	K_1 (cm/sec)	K_1 (cm/sec)
0	—	—	252.2	—	—
36	36	252.2	233.9	5.45×10^{-3}	0.00545
51	15	233.9	230.9	2.24×10^{-3}	0.00224
68	17	230.9	227.8	2.07×10^{-3}	0.00207
84	16	227.8	224.8	2.16×10^{-3}	0.00216
106	22	224.8	221.8	1.59×10^{-3}	0.00159
131	25	221.8	218.7	1.47×10^{-3}	0.00147
161	30	218.7	215.7	1.20×10^{-3}	0.00120
204	43	215.7	212.6	8.76×10^{-4}	0.000876
240	36	212.6	209.6	1.03×10^{-3}	0.00103
289	49	209.6	206.5	7.92×10^{-4}	0.000792
	289 701742				

TIME WEIGHTED AVERAGE K_1 :

$$K_1(t_2 - t_1)$$

$$0.1461$$

$$0.0336$$

$$0.0352$$

$$0.0345$$

$$0.0350$$

$$0.0366$$

$$0.0360$$

$$0.0377$$

$$0.0370$$

$$0.0388$$

$$0.5205$$

$$K_1' = \frac{0.5205}{289} = 0.00180 = 1.80 \times 10^{-3} \text{ cm/sec}$$



WELL NO. 1

K₂ (HORIZONTAL)

$$L = 1405.9 - 1393.2 = 12.7 \text{ cm}$$

$$D = 10.16 \text{ cm}$$

$$b_2 = 447.6 \text{ cm}$$

$$F = 1 - (.5623 e^{-1.566 L/D}) = 1 - (.5623 e^{-1.9575}) = 1 - (.5623 \times .1412) = 1 - .0794 = 0.9206$$

$$G_5 = \frac{[4b_2/D + L/D] + [1 + (4b_2/D + L/D)^2]^{1/2}}{[4b_2/D - L/D] + [1 + (4b_2/D - L/D)^2]^{1/2}}$$

$$= \frac{[(4 \times 447.6)/10.16 + \frac{12.7}{10.16}] + \{1 + [(4 \times 447.6)/10.16 + \frac{12.7}{10.16}]^2\}^{1/2}}{[4 \times 447.6/10.16 - \frac{12.7}{10.16}] + \{1 + [(4 \times 447.6)/10.16 - \frac{12.7}{10.16}]^2\}^{1/2}}$$

$$= \frac{177.470 + (1 + 31495.769)^{1/2}}{167.656 + (1 + 28108.42)^{1/2}}$$

$$= \frac{177.470 + 177.473}{167.656 + 167.659} = \frac{354.943}{335.315} = 1.0585$$

$$G_4 = \frac{12.7}{10.16} + [1 + (\frac{12.7}{10.16})^2]^{1/2} = 2.8508$$

$$G_3 = 2 L_m (2.8508) + 0 = 2.0952$$

$$G_2 = (10.16^2 / 16(0.9206)(12.7)) \times 2.0952 = 1.1562$$

$$R_{EG_2} = \frac{0.886}{1.011} (1.1562) = 1.013$$

$$K_2 = 1.013 \frac{\ln(H_1/H_2)}{(t_2 - t_1)}$$

Δt (sec)	t ₂ - t ₁	H ₁ (cm)	H ₂ (cm)	K ₂ (cm/sec)	K ₂ (cm/sec)	K ₂ (t ₂ - t ₁)
0	—	—	280.2	—	—	—
10	10	280.2	237.5	1.67 × 10 ⁻²	0.0167	0.1675
19	9	237.5	231.4	2.93 × 10 ⁻³	0.00293	0.0264
26	7	231.4	228.4	1.89 × 10 ⁻³	0.00189	0.0132
35	9	228.4	225.3	1.52 × 10 ⁻³	0.00152	0.0137
48	13	225.3	222.3	1.04 × 10 ⁻³	0.00104	0.0136
58	10	222.3	219.2	1.42 × 10 ⁻³	0.00142	0.0142
73	15	219.2	216.2	9.31 × 10 ⁻⁴	0.000931	0.0140
94	21	216.2	213.1	6.77 × 10 ⁻⁴	0.000677	0.0146
123	29	213.1	210.1	4.89 × 10 ⁻⁴	0.000489	0.0142
	123					0.2914

$$K_2' = \frac{0.2914}{123} = 0.00237 = 2.37 \times 10^{-3} \text{ cm/sec}$$

WELL NO. 2

K₁ (VERTICAL)

$$RtG_1 = \frac{14(10.16)}{11} \times \frac{0.949}{1.011} = 2.724$$

$$b_1 = 1847.1 - 764.5 = 1082.6 \text{ cm}$$

USE 20 TEST DIAMETERS : H₁ : H₂ = 11 + 203.2

$$K_1 = 2.724 \times \frac{E_v \frac{H_1}{H_2}}{(t_2 - t_1)} \quad \text{cm/sec}$$

Δt (SEC)	$t_2 - t_1$	H_1 (cm)	H_2 (cm)	K_1 (cm/sec)	K_1 (cm/sec)	$K_1 (t_2 - t_1)$
0	—	—	967.7	—	—	—
68	68	967.7	673.6	1.45×10^{-2}	0.0145	0.9869
161	93	673.6	634.8	2.20×10^{-3}	0.00220	0.2049
232	71	624.8	597.1	1.74×10^{-3}	0.00174	0.1235
504	272	597.1	521.2	1.36×10^{-3}	0.00136	0.3703
1103	599	521.2	427.9	8.97×10^{-4}	0.000897	0.5373
1683	580	427.9	402.0	2.93×10^{-4}	0.000293	0.1708
3593	1910	402.0	347.1	2.09×10^{-4}	0.000209	0.4000
5347	1754	347.1	310.2	1.75×10^{-4}	0.000175	0.3062
	5347					3.0499

$$K_1' = \frac{3.0499}{5347}$$

$$K_1' = 0.000580 = 5.80 \times 10^{-4} \text{ cm/sec}$$

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS



WELL NO. 2

K₂ (HORIZONTAL)

$$L = 784.9 - 764.5 = 20.4 \text{ cm}$$

$$D = 10.16 \text{ cm}$$

$$F = 1 - (.5623 e^{(-1.546 (\frac{20.4}{10.16}))}) = 1 - (.5623 e^{-3.144}) = 1 - 0.0431 = \boxed{0.9569}$$

$$G_4 = 20.4/10.16 + [1 + (20.4/10.16)^2]^{1/2} = \boxed{4.2510}$$

$$G_3 = 2 \ln(4.2510) + 0 = \boxed{2.8943}$$

$$G_2 = \left(\frac{10.16^2}{16(.9569)(20.4)} \right) (2.8943) = 0.9566$$

$$R_1 G_2 = \frac{0.928}{7.011} \times 0.9566 = 0.8781$$

$$K_2 = 0.8781 \frac{\ln(H_1/H_2)}{t_2 - t_1}$$

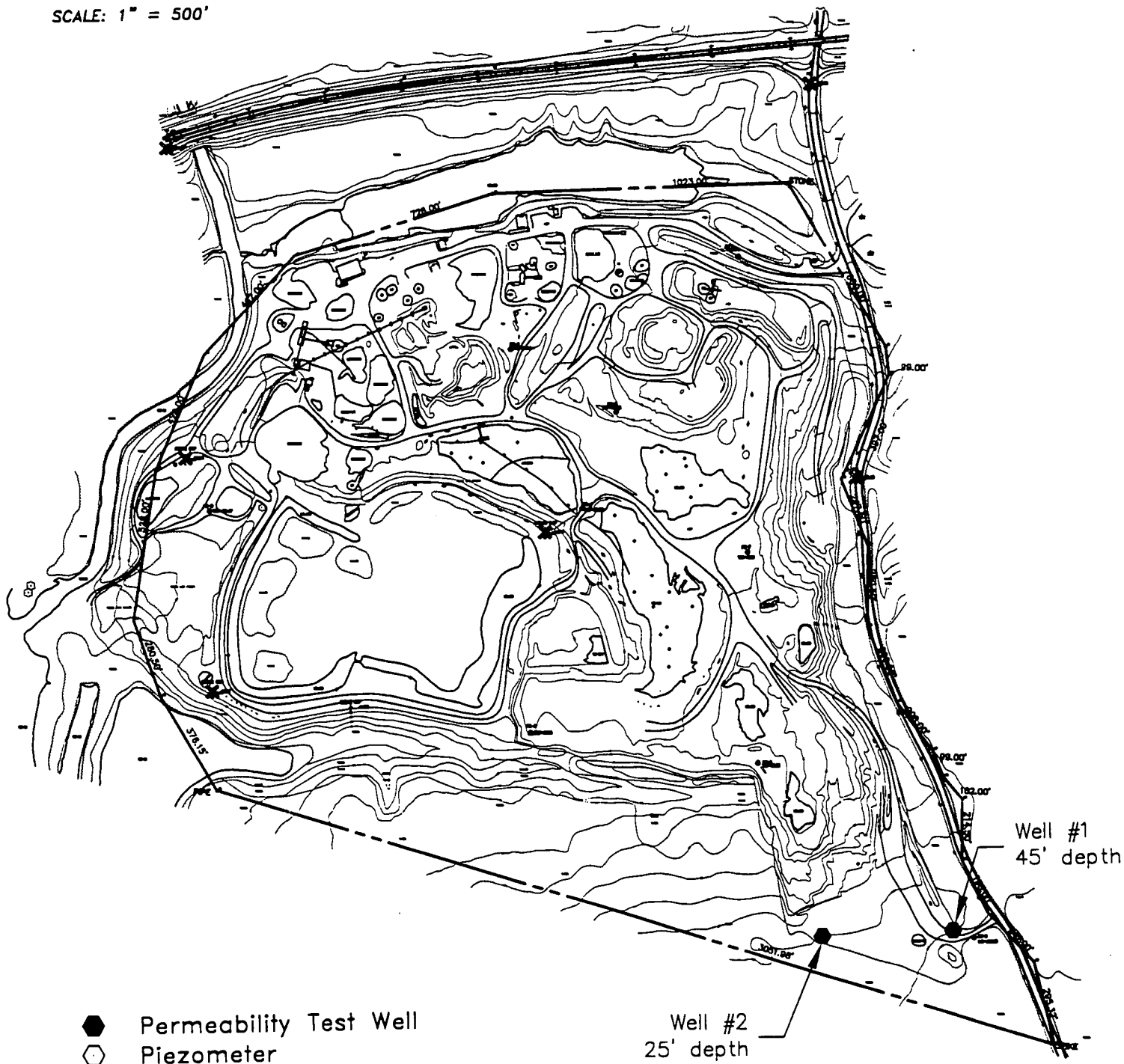
Δt (SEC)	$t_2 - t_1$	H_1 (cm)	H_2 (cm)	K_2 (cm/sec)	K_2 (cm/sec)	$K_2(t_2 - t_1)$
0	—	—	988.1	—	—	—
83	83	988.1	928.7	6.56×10^{-4}	0.000656	0.0544
312	229	928.7	833.6	4.14×10^{-4}	0.000414	0.0949
609	297	833.6	741.2	3.47×10^{-4}	0.000347	0.1032
1024	415	741.2	643.7	2.98×10^{-4}	0.000298	0.1238
1484	460	643.7	564.4	2.51×10^{-4}	0.000251	0.1154
1834	350	564.4	518.7	2.12×10^{-4}	0.000212	0.0741
3039	1205	518.7	421.2	1.52×10^{-4}	0.000152	0.1828
4293	1254	421.2	380.3	7.15×10^{-5}	0.0000715	0.0897
5147	854	380.3	357.8	6.27×10^{-5}	0.0000627	0.0536
6685	1538	357.8	323.6	5.74×10^{-5}	0.0000574	0.0882
	<u>6685</u>					<u>0.9801</u>

TIME-WEIGHTED AVERAGE:

$$K_2' = \frac{0.9801}{6685} = 0.000147 = \boxed{1.47 \times 10^{-4} \text{ cm/sec}}$$



SCALE: 1" = 500'



PERMEABILITY TEST WELL
LOCATION MAP



KCE ENGINEERING, INC.

EXECUTIVE CENTER
3300 NORTH RIDGE ROAD, SUITE 315
ELLICOTT CITY, MARYLAND 21043
PHONE (410) 203-9800 FAX (410) 203-9228
EMAIL KCE.ENG@GMAIL.COM

STANCILL QUARRY
CECIL COUNTY, MARYLAND

A-4 WELL INVENTORY

kce-stancil's

Subdivision

Nearest Road

North Grid

East Grid

Complete Date

TD

Depth

Reel

Field

Static

Purely Level

PER OWNER N USE FO SUBDI ROAD NA RID27 RID27 ION DATE DEPTH DEPTH REEN 1 IG RATE BEFORE DURING

✓ CE700016	SMOKER, NO D	GREENB	CARPENTER	630000	1080000	09/10/1969	53	45	48	15	7	20
✓ CE700046	SLAYMAN, J D		CARPENTER	625000	1075000	09/20/1969	100	100	95	10	40	60
✓ CE710069	FRONHEISE I		CARPENTER	630000	1080000	09/23/1970	67	61	62	30	13	42
✓ CE710075	BLACKBURN, D		MD 7	635000	1080000	10/26/1970	67	61	62	10	22	55
✓ CE710079	BOOCHELLI, D		MECHANICS	635000	1080000	10/19/1970	100	42	42	12	50	65
✓ CE710101	DELANEY, WI D	J J BABE	LITTLE RIVER	640000	1070000	11/07/1970	59	54	54	15	20	50
✓ CE710238	RAPPOLD, E D	GREENB	WOODALL	625000	1080000	09/03/1971	75	70	70	20	10	75
✓ CE710270	PEEL, WALL D	CARPEN	CARPENTERS	625000	1075000	06/04/1971	133	120	128	30	54	105
✓ CE710307	SPENGLER, D	GREEN B	WOODALL RD	625000	1080000	07/07/1971	137	127	132	12	15	20
✓ CE720016	ZERBE, EUG D	GREEN B	GREEN BANK	625000	1080000	08/08/1971	83	78	78	7	18	35
✓ CE720085	CLEMENS, H D	GREENB	CARPENTER	625000	1080000	02/01/1972	45	40	40	30	15	
✓ CE720103	PORTER, GE D		JACKSON ST	635000	1070000	12/08/1971	82	82	82	35	14	22
✓ CE720104	PORTER, GE D		WINCH RD	635000	1070000	12/08/1971	125	66	85	5	30	84
✓ CE720105	PORTER, GE D		WINCH RD	635000	1070000	12/10/1971	123	26	26	40	16	24
✓ CE720194	TRIBBLE, LE D		JACKSON ST	635000	1070000							
✓ CE720354	SOMMERS, C D		GREENBANK	630000	1080000	09/03/1972	75	70	70	20	1	75
✓ CE730063	ANDRICHYN, D	CHESNU	CARPENTER	625000	1080000	08/30/1972	78	74	73	30	16	54
✓ CE730116	PORTER, GE D		WINCH	635000	1070000	02/03/1975	82	54	54	2	25	70
X CE730238	PORTER, GE D		JACKSON ST	635000	1070000							

Monday, March 18, 2002

Page 1 of 8

Permit

USE

USE

<u>PER OWNER_N USE FO SUBDI ROAD_NA RID27 RID27 ION DATE DEPTH DEPTH REEN 1 IG RATE BEFORE DURING</u>											
✓ CE730366	VERDEL CON I		NORTHEASTE	645000	1075000	05/22/1973	110	105	103	10	78 90
X CE730536	INGRAM, JAS D		BURNT BARN	630000	1075000						
✓ CE730556	MARKUS, WA D		RT 40	640000	1080000	10/10/1973	150	60	60	4 40 140	
X CE730573	BRITTINGHA D	GREENB	CARPENTER	625000	1080000						
X CE730578	MAST, VERN D	GREENB	CARPENTER	625000	1080000						
✓ CE730659	SPADAFORA, D		CARPENTERS	635000	1080000	01/08/1974	112	107	107	12 40 60	
✓ CE730664	ROARK, PAT D		WOODALL RD	630000	1080000	05/19/1974	90	85	85	5 40 90	
✓ CE730741	PORTER, GE D		JACKSON ST	635000	1075000	03/13/1974	260	65	65	2 30 180	
✓ CE730822	DAVIS, CLAU D		GREENSPRIN	635000	1080000	05/29/1974	70	65	65	20 18 40	
✓ CE730827	JONES, IDW D		GREENBANK	625000	1070000	06/06/1974	105	100	100	10 50 80	
✓ CE731141	SLAYMAN, J D		CARPENTERS	635000	1080000	05/07/1975	90	85	85	12 40 60	
✓ CE731158	NOLL, CLAIR D	GREEN B	WOODALL RD	630000	1080000	04/29/1975	105	98	100	15 23 42	
✓ CE731195	ARMSTRONG D		CARPENTERS	625000	1070000	09/03/1975	90	85	85	25 35 60	
✓ CE731263	RODEHEAVE D		CANVAS BAC	635000	1080000	08/09/1975	93	88	88	12 30 40	
✓ CE731274	GLENN, GEO D		BURNT BARN	635000	1070000	09/05/1975	167	160	162	35 93 125	
X CE731295	CURRIN, LIN D		MOUNTAIN HI	635000	1075000						
✓ CE731339	BETTER HO D		MT VIEW RD	635000	1075000	10/22/1975	185	180	180	30 99 128	
✓ CE731401	MCELYEA, W D		MT VIEW RD	635000	1075000	02/09/1976	181	132	176	25 99 124	
✓ CE731466	ALGAR, HAR D		MD 7	630000	1070000	04/20/1976	127	20	20	5 30 80	
X CE731478	KREIDER, S D		MOUNTAIN HI	625000	1070000						
✓ CE731481	SIMPSON, E D		MOUNTAIN HI	635000	1070000	12/09/1976	60	55	55	8 30 40	

PER OWNER_N USE FO SUBDI ROAD NA RID27 RID27 ION DATE DEPTH DEPTH REEN 1/G RATE BEFORE DURING

✓ CE731506	GRAY, FLOY D		MOUNTAIN HI	625000	1070000	12/13/1976	65	60	60	10	35	45
✓ CE731588	HARRIS, DO D		WOODALL RD	635000	1080000	08/31/1976	90	85	85	15	50	70
✓ CE731597	GOOD, ROD D		EDGEWATER	635000	1080000	08/24/1976	40	35	35	8	5	20
✓ CE731598	WARRINGTO D		PRINCIPIO	635000	1070000	05/03/1977	100	37	37	8	25	100
✓ CE731756	ROBINSON, L D	GREENB	BURNT BARN	630000	1080000	10/06/1976	84	79	79	12	60	61
✓ CE731814	GREENE, DA D		BURNT BARN	625000	1070000	01/24/1977	114	106	109	20	48	90
✓ CE731931	DAROIS, RO D		GREENBANK	635000	1080000	03/31/1977	110	105	105	30	30	60
✓ CE731956	MAST JR, VE D		WOODALL RD	635000	1080000	05/19/1977	50	45	45	20	5	25
✓ CE731957	BRITTINGHM, D		WOODALL RD	635000	1080000	05/24/1977	90	85	85	6	10	50
✓ CE731996	MCVEY, GEO D		WOODALL ST	635000	1080000	07/18/1977	70	65	65	10	40	50
✓ CE732063	GIRALDI, RO D		JACKSON ST	635000	1070000	01/31/1978	144	25	25	4	20	144
✓ CE732089	TODT, PAUL D		WOODALL RD	635000	1080000	10/14/1977	90	85	85	12	40	60
✓ CE732163	MELRATH, K D		WOODALL RD	635000	1080000	09/22/1977	50	45	45	30	10	40
✓ CE732168	VANSICKEL, D		OLD RT 7	635000	1070000	08/30/1977	244	106	106	2	80	244
✓ CE732272	ROGERSON, D		MOUNTAIN HI	635000	1070000							
✓ CE732286	TRI STATE M I		US RT 40	640000	1080000	01/26/1978	204	83	83	30	60	100
✓ CE732386	ROGERSON, D		MOUNTAIN HI	630000	1075000	02/02/1978	177	167	167	30	110	160
✓ CE732518	BRITTINGHA D		WOODALL	635000	1080000	06/06/1978	50	45	45	30	10	30
✓ CE732584	HUGHES, RO D		WOODALL RD	630000	1080000	09/09/1978	40	35	35	8	25	35
✓ CE732605	IREY, DON I	CRAFT H	CARPENTERS	625000	1080000	10/10/1978	70	61	65	30	19	30
✓ CE732664	FRAZIER, ZE D		RT 7 PRINCIPI	635000	1070000	03/11/2000	700	100	100	1	60	210

PER OWNER_N USE_FO SUBDI ROAD_NA RID27 RID27 ION DATE DEPTH DEPTH REEN 1 IG RATE BEFORE DURING

✓	CE732718	NIXDORF, JO D	CLARK RD	635000	1080000	11/02/1978	150	145	145	15	60	90
✓	CE732724	PASCAL, VIR D	GREENBANK	635000	1080000	11/09/1978	55	50	50	15	6	30
✓	CE732851	GARBER, CA D	CARPENTERS	625000	1070000	02/22/1979	87	82	82	20	40	60
✓	CE732902	BOSTIC, STE D	BURNT BARN	630000	1075000	04/20/1979	165	158	160	30	90	118
✓	CE732957	CHESTNUT P I	CARPENTERS	629001	1079999	06/22/1979	93	86	88	45	68	84
✓	CE733062	FREEDY, JO D	GREEN B GREENBANK	630000	1080000	10/19/1979	132	127	127	30	32	65
✓	CE733091	RITTENHOUS D	BURNT BARN	630000	1075000	10/22/1979	70	64	65	30	18	45
X	CE733144	PORTER, GE D	WINCH	635000	1070000							
✓	CE733161	GIBSON, GE D	WINCH	640000	1070000	09/27/1979	143	20	20	5	25	143
✓	CE733164	TANNER, RO D	EDGEWATER	635000	1080000	11/01/1979	60	55	55	20	5	30
✓	CE733203	NE WASTE W I	CARPENTER	630000	1080000	11/12/1979	100	93	93	18	18	88
✓	CE733216	PAYNE, BAR D	MD RT 7	635000	1080000	01/12/1980	138	133	133	5	75	80
X	CE733278	SUIT, JIMMY D	MD RT 7	635000	1080000							
✓	CE733290	CAMPBELL, D	US RT 40	635000	1070000	02/05/1980	220	59	59	3	70	150
✓	CE733378	LEWIS, LIND D	RED TOAD RD	645000	1080000	07/18/1980	95	27		40	40	60
✓	CE733480	VICKERS, EU D	CECIL AVE	630000	1080000	10/02/1980	95	90	90	15	5	35
X	CE733502	MD DEPT OF I	US RT 40	639000	1076000							
✓	CE733520	PORTER, GE D	WINCH RD	645000	1075000	08/16/1980	120	61	61	50	30	40
✓	CE733625	NEWSWANG D	CHESTN CARPENTERS	625000	1080000	11/18/1980	81	74	76	15	13	25
X	CE733646	STATE HIGH I	US 40	639000	1077000							
✓	CE733759	WARRINGTO D	RT 7	636000	1071000	07/13/1981	160	36	36	5	40	160

Monday, March 18, 2002

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PER OWNER N USE FO SUBDI ROAD NA RID27 RID27 ION DATE DEPTH DEPTH REEN 1 IG RATE BEFORE DURING												
✓	CE733921	CLARK, STA D	GREEN B	GREEN BANK	630000	1080000						
✓	CE733987	STANCILLS I I		MOUNTAIN HI	633000	1074000	09/01/1981	210	90	90	11	20 80
✓	CE810228	KNISELY EU D	GREENB	KIRK RD	628000	1080000	03/03/1982	49	43	44	20	12 21
✓	CE810281	SINE SEWAR D		PRINCIPIO FU	635000	1070000	04/28/1982	168	69	69	20	60 100
✓	CE810339	CARPENTER P	CARPEN	CARPENTERS	625024	1079648	06/24/1982	90	71	80	50	23 84
✓	CE810345	BURTON W R D		CARPENTERS	631000	1080000	07/23/1982	77	70	70	10	20 50
✓	CE810431	RAYSON GLE D		MOUNTAIN HI	629000	1075000	10/02/1982	120	115	115	15	20 120
✓	CE810473	GRAY E G D		MOUNTAIN HI	635000	1074000	11/04/1982	225	80	80	3	70 225
X	CE810708	MUSICK JOH D		JACKSON ST	637000	1071000						
✓	CE810741	IRACKI DENN D		CHARTER HIL	628000	1072000	09/03/1983	60	55	55	12	40 50
X	CE810762	WOODS NOR D		WINCH RD	638000	1071000						
✓	CE810773	BARBERO JA D		MOUNTAIN HI	630000	1077000	11/10/1983	175	158	170	10	98 150
✓	CE810827	BARCLAY JR D		MD RT 7	635000	1070000	10/25/1983	85	21	21	15	35 50
✓	CE810955	OALS JAMES D		WINCH RD	639000	1071000	03/13/1984	125			30	35 80
✓	CE810976	RAYSON E G D	POPLAR	POPLAR POIN	626000	1074000	04/02/1984	65	55	55	30	18 27
✓	CE811135	BRADLEY RO D	GREENB	KIRK RD	629000	1080000	11/05/1984	86	73	81	25	4 42
✓	CE811223	PETERSON L D	POPLAR	POPLAR POIN	626000	1073000	09/25/1984	63	56	56	15	23 32
✓	CE811231	NEIDLEIN SO D		JACKSON ST	638000	1070000	09/25/1984	160	30	30	5	15 160
✓	CE811250	CRAIG WILLI D		CHESTNUT P	627000	1080000	10/22/1984	50	46	46	40	19 40
✓	CE811277	MCGUIRK RO D		JACKSON ST	637000	1071000	11/28/1984	250	49	49	11	30 190
✓	CE811340	ALEXANDER D		MOUNTAIN HI	630000	1076000	01/07/1985	157	147	147	32	90 157

PER OWNER_N USE FO SUBDI ROAD_NA RID27 RID27 ION DATE DEPTH DEPTH REEN 1 IG RATE BEFORE DURING

✓	CE811480	FRONHEISE I		CARPENTERS	629001	1079999	05/02/1985	85	80	80	15	40	60
✓	CE811544	MUSICK ARV D		JACKSON ST	637000	1071000	05/21/1985	200	75	75	4	50	100
X	CE811565	CARPENTER P	CARPEN	CARPENTERS	625000	1079000				1			
✓	CE811593	MARSHALL E D	POPLAR	POPLAR POIN	626000	1073000	08/07/1985	105	95	95	10	56	66
✓	CE811715	COOK KEITH D	GREENB	WOODALL RD	630000	1080000	10/15/1985	116	106	111	30	38	94
✓	CE811805	HENDRICKS D	GREENB	WOODALL RD	629000	1080000	10/18/1985	130	120	121	40	24	33
✓	CE812008	GROSS SIMO D	GREENB	CLARK RD	630000	1079000	05/13/1986	146	136	136	40	38	120
✓	CE812034	LYON JERRY D		PRINCIPIO FU	636000	1071000	04/04/1986	300	70	70	6	43	225
✓	CE812079	MONTGOME D	EASTRID	MOUNTAIN HI	630000	1077000	06/21/1986	124	119	119	12	100	105
✓	CE812120	MYER FLOYD D	GREENB	WOODALL RD	630000	1080000	05/16/1986	96	91	91	15	50	70
✓	CE812201	PETERSON L D	POPLAR	POPLAR PT R	626000	1073000	11/13/1986	106	96	96	20	40	100
✓	CE812507	MCGUIRK MI D		JACKSON ST	637000	1076000	10/23/1986	275	60	60	3	42	160
✓	CE812582	MONTGOME D	EASTRID	MOUNTAIN HI	632000	1077000	02/18/1987	165	155	155	20	137	160
✓	CE812711	MILLER BOB D		GILLEY RD	635000	1070000	01/13/1987	167	71	71	15	44	167
✓	CE812720	TATE ROGER D		GILLEY RD	636000	1070000	01/14/1987	250	61	61	8	40	180
✓	CE812987	DIETER FRA D		JACKSON ST	637000	1070000	06/03/1987	126	45	45	15	40	70
✓	CE812997	HUGHES RO D	GREENB	84 KIRK RD	629000	1080000	07/23/1987	89	79	84	20	2	40
✓	CE813820	FRONHEISE D	GREENB	GREEN BANK	630000	1080000	08/07/1988	138	128	128	20	48	90
✓	CE880487	ALBANESE J D	MINOR 6	MOUNTAIN HI	632000	1076000	08/04/1989	140	130	130	20	90	130
✓	CE880695	JONE MERVI D	GREENB	CARPENTER	629000	1078000	10/10/1989	175	165	165	20	80	140
✓	CE880696	JONE MERVI D	GREENB	CARPENTER	629000	1078000	10/18/1989	145	135	135	18	70	110

Monday, March 18, 2002

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<u>PER OWNER N USE FO SUBDI ROAD NA RID27 RID27 ION DATE DEPTH DEPTH REEN 1 IG RATE BEFORE DURING</u>												
✓CE880702	CHESTNUT P P		CARPENTERS	629001	1079999	10/20/1989	105	95	95	12	60	85
✓CE880722	YORK BUILDI T		WINCH ROAD	645000	1071000	09/29/1989	150	77	77			
✓CE880730	BAKER GEO D		PRINCIPIO FU	635000	1070000	08/30/1989	224	90	90	4	48	180
✓CE880772	BIEBER WER D		POPLAR PT R	629000	1076000	10/11/1989	110	100	100	10	50	100
✓CE881149	JONES MER D	GREEN B	GREEN BANK	629000	1078000	05/02/1990	140	130	130	30	60	120
✓CE881228	LUSK MARVI D	GREENB	CLARK RD	630000	1079000	06/03/1990	195	185	185	25	95	120
✓CE881284	BOYCE CHA D	GREENB	GREENBANK	629000	1078000	10/29/1990	156	146	151	20	55	100
✓CE881434	MCELYEA WI D	GREENB	CARPENTERS	630000	1080000	10/31/1990	128	115	123	30	31	100
✓CE881819	GRAY EDWA D		MOUNTAIN HI	634000	1075000	05/23/1991	300	86	86	2	50	210
✓CE882179	SOTHALL JA D	GREENB	WOODALL RD	630000	1079000	01/14/1992	148	138	138	30	44	100
✓CE882206	SETTLEMYR D	GREENB	CLARK RD	630000	1080000	01/09/1992	171	161	161	25	60	140
✓CE882359	JACKSON JA D		MT HILL	634000	1075000	05/01/1992	600	110	110	1	95	470
✓CE882367	GIFFORD RA D	GREENB	WOOD ALL R	629000	1080000	09/17/1992	129	119	119	20	40	90
✓CE882439	ROGERS JO D	GREEN B	GREEN BANK	629000	1078000	08/05/1992	127	117	117	10	80	110
✓CE882440	BEAMAN RO D	GREEN B	GREEN BANK	639000	1078000	05/12/1992	126	116	116	10	65	105
✓CE882600	CRAFT HAVE I	CRAFT H	CARPENTER	627629	1079346	08/27/1992	77	67	67	10	45	70
✓CE920188	BAY COUNT D	GREENB	WOOD ALL R	630000	1080000	01/21/1993	166	156	156	15	65	140
✓CE920290	RIDER RONA D	GREENB	CLARK RD	630000	1079000	04/25/1993	178	168	168	15	45	100
✓CE920320	CONRAD TH D	GREENB	WOODALL RD	630000	1080000	04/27/1993	140	130	130	10	55	100
✓CE920322	HOLMAN WIN D	GREENB	GREENBANK	629000	1079000	07/20/1993	150	140	140	20	80	120
✓CE920328	MORRISON P D	GREENB	39 GREENBA	630000	1079000	05/19/1993	118	112	113	30	40	80

PER OWNER N USE FO SUBDI ROAD NA RID27 RID27 ION DATE DEPTH DEPTH REEN 1 IG RATE BEFORE DURING

✓ CE920334	GROSS BAR D	GREENB	64 WOODALL	630000	1079000	05/20/1993	151	147	147	15	52	80
✓ CE920416	GILBERT RIC D		JACKSON ST	638000	1070000	08/26/1993	200	40	40	8	41	165
✓ CE880815	BENDER CO D	GREENB	CLARK RD.	630000	1079000	10/04/1989	155	145	145	20	52	100
✓ CE881241	ROBINS JAM D	GREENB	WOODALL RD	629000	1080000	07/02/1990	120	110	110	15	60	95
✓ CE920414	RITTER JEFF D	GREEN B	GREEN BANK	629000	1080000	07/28/1993	1	80	80	20	60	80
✓ CE920441	RHODES RO D	GREENB	GREENBANK	630000	1079000	09/10/1993	132	127	127	25	30	60
X CE942502				627472	1071771							
✓ CE930380	BEDDOE MIC D	GREENB	WOODALL RD	630000	1080000	07/25/1994	127	123	123	25	37	80
✓ CE930296	BLACK HILL I		MCKINNEYTO	626000	1078000	03/16/1994	241	231	231	30	162	230
✓ CE930094	FORSMAN B D		MOUNTAIN HI	635000	1075000	09/23/1993	61	51	51	5	45	55
✓ CE930041	WOOD DAVI D	GREEN B	CLARK RD	630000	1077000	10/15/1993	185	175	175	15	85	160
✓ CE930039	BROWN JOA D	GREENB	WOODALL RD	631000	1080000	12/03/1993	139	129	129	20	60	120
X CE944326				629001	1079999	01/18/2001	100	80	80			

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 07/18/69
MO DA YR

PERMIT NUMBER- CE-70-0016

ISSUED TO DRILLER-

DONALD S NEWNAM

DRILLER

ID. NUMBER- 138

CECILTON MARYLAND

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

SHOKER, NORMAN

INTERCOURSE PENNA 17

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREENBANK SUBDIVISION, SECTION- , LOT-
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

NONE.

THIS PERMIT IS VALID UNTIL
07/18/70. A WELL COMPLETION
REPORT MUST BE SUBMITTED
TO THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED
(FOR USE ONLY)

07 1867

OWNER: *Sm. Sen. ...*
STREET OR RFD: *In ...*
POST OFFICE: *... Penna.*
COL 15: LAST NAME
COL 16: FIRST NAME
COL 17: CITY
COL 18: STATE
COL 19: ZIP CODE

70-0016

DRILLER INFORMATION

DRILLER: *Donald S. Newman*
FIRST NAME: *Donald*
LAST NAME: *Newman*
STREET OR RFD: *Cecil ...*
POST OFFICE: *Maryland*
DATE OF APPLICATION: *7/15/67*

COUNTY: *Cecil*
SUBDIVISION: *Green ...*
SECTION: *44*
NEAREST TOWN: *Charles Town*
MILES FROM TOWN (ENTER 0 IF IN TOWN): *3*

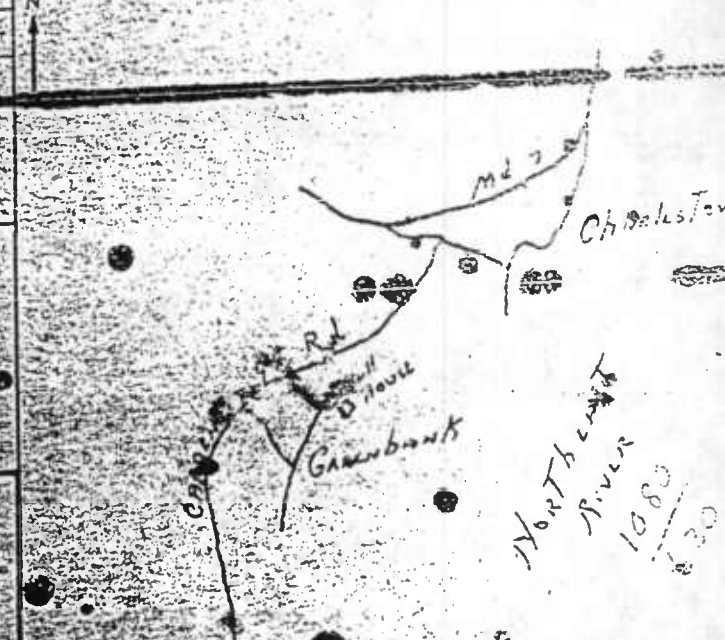
WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE): *10*
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): *800*
USE FOR WATER (CIRCLE APPROPRIATE BOX):
☒ DOMESTIC HOME (SINGLE OR DOUBLE HOUSEHOLD USE ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
☐ TEST
APPROXIMATE DEPTH OF WELL: *160* FEET
METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD):
☒ AIR-ROTARY
☐ AIR-RECURSION
☐ ROTARY (HYDRAULIC ROTARY)
☐ OTHER (SPECIFY):

DIRECTION FROM TOWN (CIRCLE APPROPRIATE USE):
☒ NORTH
☐ EAST
☐ NORTHWEST
☐ SOUTH
☐ WEST
☐ SOUTHWEST
NEAR WHAT ROAD: *CARPENTER PT. ROAD*
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX):
☒ NORTH
☐ SOUTH
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): *1*

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROAD AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. INDICATE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CHOOSING CORNER OF THE SKETCH. DISTANCE MAY BE APPROXIMATE, BUT MUST BE INDICATED.

REPLACEMENT OR DEEPEND WELLS (CIRCLE APPROPRIATE BOX):
☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL BE USED AS A STANDBY
NOT TO BE FILLED IN BY DRILLER (FOR USE ONLY):
APPROVED BY: *...*
PERMIT NUMBER: *...*
ENGINEER'S SIGNATURE: *...*
DISTRICT OF THE STATE:



HEALTH DEPARTMENT APPROVAL (NOT TO BE FILLED IN BY DRILLER):
COUNTY DEPT. OF HEALTH: *Cecil*
LATITUDE: *39 23 30*
LONGITUDE: *07 60 00*
ELEVATION AT WELL HEAD (FEET): *004*
SUPERVISING SANITARIAN: *...*

POST OFFICE

DATE OF RECORD

DEPTH OF SUMP

TYPE OF PUMP

WATER LEVEL

TYPE OF PUMP USED

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

TYPE OF PUMP

LOCATION OF WELL ON LOT
INDICATE NEAREST BUILDING, DRIVE, FENCE, ETC.
AND DISTANCE THEREFROM TO WELL.
INDICATE NEAREST ROAD AND DISTANCE THEREFROM TO WELL.

CASING HEIGHT (INDICATE APPROXIMATE BOX
AND Casing Height)

PUMP INSTALLED
TYPE OF PUMP (INDICATE APPROXIMATE LOCATION IN
BOX - SEE ABOVE)

TYPE OF PUMP USED (INDICATE APPROXIMATE LOCATION IN
BOX - SEE ABOVE)

WATER LEVEL (INDICATE APPROXIMATE LOCATION IN
BOX - SEE ABOVE)

TYPE OF PUMP (INDICATE APPROXIMATE LOCATION IN
BOX - SEE ABOVE)

TYPE OF PUMP (INDICATE APPROXIMATE LOCATION IN
BOX - SEE ABOVE)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 08/18/69
MO DA YR

* PERMIT NUMBER- CE-70-0046 *

ISSUED TO DRILLER-

VERNON KIRK
RD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

SLAYMAN, JAMES
CARPENTER RD
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

NONE.

THIS PERMIT IS VALID UNTIL
08/18/70. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

681469

Charles town Md

7.0 - cc 46

DRILLER INFORMATION

B-2.				
1	2	3	(SEC. NO.)	4

1 Vernon K-R-K IDENTIFY NUMBER 159
8 FIRST NAME GRILLER LAST NAME 29 32
34 Rd. #1 STREET OR RD 55
Perryville, Md. 21903
85 POST OFFICE ZIP CODE RD
DATE OF APPLICATION August 11, 1969

8 3 WELL INFORMATION

2-3 (SEQ. NO.) 5

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 12

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ F FARMING, AGRICULTURE, IRRIGATION

☐ I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.

☐ M MUNICIPAL WATER SUPPLY

☐ P PRIVATE WATER COMPANY

TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 60

METHOD OF DRILLING USED (SELECT APPROPRIATE METHOD)		
<input type="checkbox"/> BORED (OR AUGERED)	<input type="checkbox"/> JETTED	<input type="checkbox"/> DRIVEN
<input type="checkbox"/> AIR-ROTARY	<input type="checkbox"/> AIR-PERCUSSION	<input type="checkbox"/> ROTARY (HYDRAULIC ROTARY)
<input type="checkbox"/> CABLE	<input type="checkbox"/> REVERSE ROTARY	

OTHER (DESCRIBE) _____

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

☒ **N** THIS WELL WILL NOT REPLACE AN EXISTING WELL

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE

☒ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

☐ THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER

NOT TO BE FILLED IN BY DRILLER (LOWR USE ONLY)

[illegible]

ENGINEER REVIEW
(WRITE DISTRICT NO. IN BOX) FORCE INITIAL
IM BOX 67 88

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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HEALTH DEPARTMENT AP

8-5 CONTINUED

43 STATE DEPARTMENT OF HEALTH
 (ENCLOSE BOX IF STATE HEALTH)

[illegible]

DECLASSIFIED BY SP-6 JAC/STW
DATE 08-17-2009

6. The following information is provided for the purpose of identifying the source of the information:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

COUNTY Charles
 SUBDIVISION _____
 SECTION 34
 NEAREST TOWN Charles Town
 MILES FROM TOWN (ENTR. DIST. IN TOWN) _____
 DIRECTION FROM TOWN
 (ENTER APPROPRIATE BOX)
 N NORTH E EAST NE NORTHEAST S SOUTH SW SOUTHWEST W WEST NW NORTHWEST
 NEAR WHAT ROAD Carpenter Rd
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
 NORTH SOUTH
 DISTANCE FROM ROAD (ENTER DISTANCE AM. APPROPRIATE BOX) 100
 34

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST
ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW.
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM SHOULD BE
THE SKETCH. DISTANCE MAY BE APPROXIMATE, BUT MUST BE INDICATED.

A hand-drawn map on a piece of paper. At the top left, there is a north arrow pointing upwards, labeled 'N'. A horizontal line represents 'Carpenter Rd'. Below this line, there is a dot labeled 'Veil' and the text '2 mi.' to its right. A vertical line intersects 'Carpenter Rd' at a right angle. To the right of this vertical line, the year '1967' is written vertically. At the bottom of the vertical line, there is a dot labeled 'charlestown'. In the bottom right corner, the number '107' is written and underlined.

1. The first group of people who are not in the labor force are those who are not in the labor force for any reason. This group is the largest and is made up of people who are not in the labor force for any reason. This group is the largest and is made up of people who are not in the labor force for any reason.

LATITUDE		3	9	5	4	2	0
----------	--	---	---	---	---	---	---

ROYAL (NOT TO BE FILLED IN BY PHYSICIAN) DATE
Cecil COUNTY DEPT. OF HEALTH NO. NAME

LONGITUDE

0	7	5	5	9	0
0	0	0	0	0	0

TITLE Supervising Sanitarian RECEIVED AT WELL HEAD (FEET) 01040

(E ONLY)

A detailed technical drawing of a mechanical component, likely a shaft or axle, showing a series of rectangular slots or grooves along its length. The drawing is oriented horizontally and includes a scale bar at the bottom right.

100-27

A black and white photograph showing a large, dense crowd of people, likely participants in a protest or demonstration. The crowd is seen from a side-on perspective, filling the frame. Many individuals are looking towards the right side of the image. The scene appears to be outdoors, possibly on a street or in a large open area. The image is somewhat grainy and has a high-contrast, historical feel.

2715

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
WELL COMPLETION REPORT

70-0046

DATE RECEIVED
10-28-67
DATE WELL COMPLETED
09-20-67

OWNER
Sloman
FIRST OR LAST NAME
Carpenter Rd

WELL LOCATION
STATE THE KIND OF FORMATION PENETRATED, STRATA, COLOR, GRAIN, THICKNESS AND IF WATER BEARING

DESCRIPTION (SEE ADDITIONAL SHEETS IF NECESSARY)	FEET		GROSS WATER SEARCH
	FROM	TO	
top soil	0	2	
clay red	2	9	
sand and gravel	9	100	

GRouting RECORD
WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 0 TO 100

CASING RECORD
Casing Type: ☒ STEEL ☐ CONCRETE
Insert: ☒ IRON PIPE ☐ PLASTIC
Other: ☐

MAIN CASING TYPE: ☒ S.T. ☐ G. ☐ O.T.
NOMINAL DIAMETER: 6
TOTAL DEPTH OF MAIN CASING (NEAREST INCH): 100

OTHER CASING IF USED
DIAMETER: ☐ 4 ☐ 6 ☐ 8 ☐ 10
DEPTH (FEET): ☐ 0 ☐ 10 ☐ 20 ☐ 30 ☐ 40 ☐ 50 ☐ 60 ☐ 70 ☐ 80 ☐ 90 ☐ 100

SCREEN RECORD
Type: ☒ WIRE MESH ☐ SLIT ☐ HOLES
Material: ☒ GALVANIZED IRON ☐ BRASS ☐ COPPER ☐ OTHER

DEPTH (NEAREST WHOLE FOOT)
0 10 20 30 40 50 60 70 80 90 100

WATER LEVEL: ☒ MEASURED ☐ ESTIMATED
PUMPING: ☒ YES ☐ NO
TYPE OF PUMP USED: ☒ AIR ☐ ELECTRIC ☐ OTHER

PUMP INSTALLED
TYPE OF PUMP (WHILE APPROPRIATE, SEE BOX - SEE ABOVE: A, C, J, P, R, S, T, U, V, W, X, Y, Z)

CAPACITY: ☒ 15 GALLONS PER MINUTE (TO NEAREST GALLON)
PUMP HORSE POWER: ☒ 1/4
PUMP COLUMN LENGTH (NEAREST FOOT): ☒ 85

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER Casing HEIGHT)
☒ ABOVE LAND SURFACE
☐ BELOW

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANK, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

CIRCLE APPROPRIATE BOX
WELL COMPLETION REPORT

WELL LOCATION
Carpenter Rd
House
Septic Tank
Charles T.

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 09/21/70
MO DA YR

* PERMIT NUMBER- CE-71-0067 *

ISSUED TO DRILLER-

DONALD S NEWMAN
CECILTON MD

DRILLER
ID. NUMBER- 118

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

FRONHEISER, ROBERT
RD 1
PERRYVILLE MD

(CHESTNUT POINT ROAD)

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A ^{COMMERCIAL} DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
03/21/71. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

GROUND WATER PERMIT
CE66GAPC20

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

(2) CHANGE CARDS PROCESSED:

FLD. #5
FLD. #4

DWR COPY

10-2-70

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

9478

THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS

DATE RECEIVED
DWR USE ONLY

CORNER

FRANKEISER, Robert

STREET OR RFD

CHESTNUT POINT MARINA

P.D. # 71-5069

POST OFFICE

Perryville, Md.

092170

DRILLER INFORMATION

Donna S. Newman
FIRST NAME LAST NAME
IDENTITY NUMBER 138

Cecil, Md.
STREET OR RFD
DATE OF APPLICATION 9/19/78

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 10
AVERAGE DAILY QUANTITY REQUIRED (GALLONS PER DAY) 6000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
MUST HAVE STATE HEALTH DEPT. APPROVAL
☐ YES

APPROXIMATE DEPTH OF WELL 70 FEET

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
☒ BORED OR AUGERED
☐ DRIVEN
☐ OTHER (DESCRIBE)

REPLACEMENT OR DEEPENDING WELLS (CIRCLE APPROPRIATE BOX)
☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☒ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL BE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENDING (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)
APPROVED FOR
EXEMPT NUMBER
EXEMPT REASON
EXEMPT DISTRICT NO. (IF 603)
DATE AND GWD

60 61 62 63 64 65 66 67 68 69

HEALTH DEPARTMENT APPROVAL (NOT TO BE FILLED IN BY DRILLER)

Cecil

Donna S. Newman

Supervising Sanitarian

092170

DATE

APPROVED BY

DATE

APPROVED BY

DATE

APPROVED BY

DATE

APPROVED BY

DATE

APPROVED BY

DATE

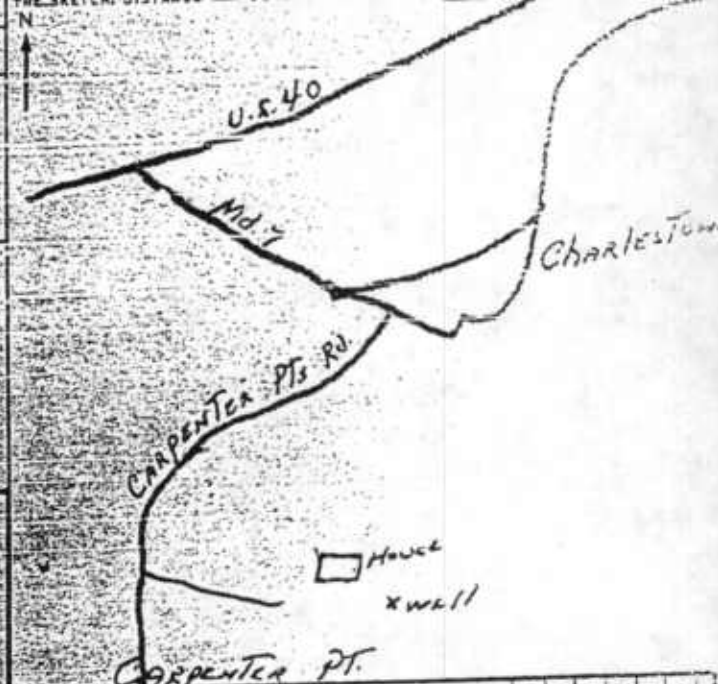
APPROVED BY

DATE

LOCATION OF WELL
COUNTY Cecil
SUBDIVISION
SECTION
NEAREST TOWN Charles Town
MILES FROM TOWN (ENTER 0 IF IN TOWN) 5

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)
N NORTH E EAST NE NORTHEAST S SOUTH SE SOUTHEAST
SW SOUTHWEST W WEST NW NORTHWEST SSW SOUTHWEST
NEAR WHAT ROAD CARPENTER PT. ROAD
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
DISTANCE FROM ROAD (ENTER DISTANCE, IF CIRCLE APPROPRIATE BOX) 1/2

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROAD AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. DISTANCE MAY BE APPROXIMATE, BUT MUST BE INDICATED.



HEALTH DEPARTMENT APPROVAL (NOT TO BE FILLED IN BY DRILLER)

Cecil

Donna S. Newman

Supervising Sanitarian

092170

DATE

APPROVED BY

DATE

APPROVED BY

DATE

APPROVED BY

DATE

APPROVED BY

DATE

APPROVED BY

DATE

APPROVED BY

DATE

APPROVED BY

71-0069

03-11-11 01:11:11

CONFIDENTIAL

NO.	DATE	DESCRIPTION	GRADING RECORD
1	10/1/54	WELL HAD BEEN GROUTED	10/1/54

Diagram illustrating the cross-section of a well casing and grout seal. The diagram shows the casing, grout seal, and the surrounding well structure. Labels include: Casing, Grout Seal, and Depth of Grout Seal to Nearest Port. Dimensions are provided for the casing and grout seal.

TO 14 28

EXTEND TO FROM SURFACE

DECLASSIFIED BY: 6032
DATE: 11-13-2001

Material	Quantity	Unit	Value		Total
			Domestic	Foreign	
Aluminum	100	kg	100	100	200
Steel	100	kg	100	100	200
Plastic	100	kg	100	100	200
Other	100	kg	100	100	200

[illegible][illegible][illegible]

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

REF: RECORD

BRONZE

PLASTIC OTHER

DEPT OF CORRECTIONS

11. DATE 11/11/68 TIME 11:11 BY 1111

CONFIDENTIAL - NO FORN DISSEM

INDICATOR

C. E.

THE UNIVERSITY OF CHICAGO

1. The first part of the document is a list of names and their corresponding dates of birth. The names are listed in a single column, and the dates are listed in a single column to the right of the names. The names are: John Doe, Jane Doe, and John Doe. The dates are: 1920, 1921, and 1922.

14-00000

74-588
BOSTON, MASS.

TYPE OF PUMPS USED

27 AIR

27 77

27

TYPE OF PUMP - SEE P. A. 1000-1000
BOX - SEE ABOVE P. A. 1000-1000

CAPACITY
KANSAS PER MINUTE

PUMP HORSE POWER

PUMP COLUMN LENGTH

ABOVE
LAND SURFACE

LOCATION OF WELL ON LOT
N. SHOW PERMANENT STRUCTURE SUCH AS

SEPTIC TANKS, AND ON VENT
(INDICATE NOT LESS THAN TWO
(MEASUREMENTS TO WELL).

1. The first part of the document is a list of names and addresses, which appears to be a directory or a list of contacts. The names are written in a cursive script, and the addresses are listed below them. The list includes names such as "J. H. Smith", "W. J. Jones", and "A. B. Brown", among others. The addresses are also listed, often with street names and city names.

100

10

Xwell 12

100

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 10/02/70
MD DA YR

* PERMIT NUMBER- CE-71-0075 *

ISSUED TO DRILLER-

DONALD S NEWNAM

DRILLER
ID. NUMBER- 138

CECILTON MD

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

BLACKBURN, W
RD
NORTH EAST MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
04/02/71. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

1. 2019년 12월 31일 현재까지의 실적
 2. 2020년 1월 1일부터 2020년 12월 31일까지의 실적
 3. 2021년 1월 1일부터 2021년 12월 31일까지의 실적
 4. 2022년 1월 1일부터 2022년 12월 31일까지의 실적
 5. 2023년 1월 1일부터 2023년 12월 31일까지의 실적

DATE RECEIVED (HOME USE ONLY)	OWNER <u>Blackburn, W</u>
100-170	STREET OR RD <u>R D</u>
	POST OFFICE <u>NORTH EAST,</u>

DRILLER INFORMATION

B 2

F 2 3 1969-10-1-5

Donald S. Newnam

IDENTITY NUMBER 138

FIRST NAME DRILLER LAST NAME ST

STREET OR RFD

Cecilton, Maryland

CITY OR TOWNSHIP

STATE OF MD

ZIP CODE 20

DATE OF APPLICATION 9/28/70

B-3 WELL INFORMATION
 (REQ. NO.) / 0
 MAXIMUM PUMPING RATE (GALLONS PER MINUTE)
 MAXIMUM DAILY QUANTITY NEEDED (GALLONS PER DAY) / 000
 USE FOR WATER (CHECK APPROPRIATE BOX)
 DOMESTIC HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
 FARMING AND AGRICULTURE, IRRIGATION
 INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
 MUNICIPAL WATER SUPPLY
 MUST HAVE STATE HEALTH DEPT. APPROVAL
 WATER TREATMENT COMPANY

APPROXIMATE DEPTH OF HILL 90 FEET
METHOD OF DRILLING USED CHISEL APPROPRIATE METHOD
BORED WATER DRIVEN
IN ROTARY IN PERCUSSION ROTARY HYDRAULIC ROTARY
WATER DRIVEN ROTARY HYDRAULIC ROTARY

REPLACEMENT OR DEEPEND WELLS (CIRCLE APPROPRIATE BOX)

☒ NEW WELLS WILL NOT REPLACE AN EXISTING WELL.

☒ A NEW WELL IS BEING DEEPER A WELL THAT WILL BE ABANDONED AND SEALED.

☐ A NEW WELL IS BEING DRILLED TO GO DEEPER THAN THE EXISTING WELL AS A STANDBY.

☐ THE EXISTING WELL IS BEING DEEPEDED.

☐ THE EXISTING WELL IS BEING REPLACED BY A DEEPER ONE IF AVAILABLE.

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D.C. 20535

MEMORANDUM FOR THE DIRECTOR, FBI
SUBJECT: [REDACTED]
DATE: 7-8-68
BY: [REDACTED]

[REDACTED]

ADDITIONAL INFORMATION:

J. E. Garry, M.D.		HEALTH DEPARTMENT-APP
STATE DEPARTMENT OF HEALTH CHIEF, DIVISION OF HEALTH		June 8, 1960

LOCATION OF WELL

1 2 3 (SEC. NO.) *Cecil*

COUNTY *5* 100 FT. APPROPRIATE COUNTY ROAD

SUBDIVISION *23*

SECTION *44* *40* LGY *1*

NEAREST TOWN *CHARLES TOWN* *52*

MILES FROM TOWN (ENTER IF IN TOWN) *75*

B *5* (SEC. NO.) *8*

N NORTH *E* EAST *NE* NORTHEAST *S* SOUTH *SW* WEST *NW* NORTHWEST *SE* SOUTHEAST

8 *8* *8* *9*

NEAR WHAT ROAD *md 7*

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) *N* *S* *E* *W*

32 *32* *32* *32*

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) *50*

34

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROAD, ROAD AND STREAM WITH NORTH IN THE DIRECTION OF THE ARROW. THE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM EXISTING UNDER THE SECTION DISTANCE MAY BE APPROXIMATE, BUT MUST BE INDICATED.

Hand-drawn map of Charles Town, West Virginia. The map shows the Kanawha River flowing through the town. A road, labeled 'Charles Town Pt. Rd.' and 'Md. 7', crosses the river. The town is labeled 'CHARLES TOWN'. The river is labeled 'Kanawha River'. A north arrow is in the top left. The map is dated '1080' and '635'.

(NOT TO BE FILLED IN BY DRILLER) LATITUDE 3 9 3 4 0
 Cecil COUNTY DEPT. OF HEALTH 80 51 32 33 34 35
 DEG MIN SEC
 LONGITUDE 3 7 5 5 0 0 0
 37 38 39 40 41 42 43
 SUPERVISING SANITARIAN
 DATE OF WELL HEAD INSPECTION 01 01 21 01
 WELL HEAD FEET

OWNER USE ONLY

02-76

[illegible]

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 10/06/70
MD DA YR

* PERMIT NUMBER- CE-71-0070 *

ISSUED TO DRILLER-

MAURICE BROWN
2
NOTTINGHAM PA 19362

DRILLER
ID. NUMBER- 39

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

BOOCHELLI, JOHN
1
NORTH EAST MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF NORTH EAST

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL DEEPEN AN EXISTING WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
04/06/71. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
WELL COMPLETION REPORT

DEPTH OF WELL

200

JOHN

POST OFFICE

NORTH HAVEN, MD.

TESTING RECORD



PUMPING TEST

DATE COMPLETED (MONTH DAY YEAR)

WELL NUMBER TO BE TESTED (SEE LIST)

13

WELL NUMBER

13

WATER LEVEL DISTANCE FROM LAND SURFACE

50

(NEAREST FOOT)

WELL NUMBER

65

(NEAREST FOOT)

TYPE OF PUMP USED (CIRCLE APPROPRIATE ONE)

- ☐ A. PISTON
- ☐ B. CENTRIFUGAL
- ☐ C. ROTARY
- ☐ D. SUBMERSIBLE
- ☐ E. TURBINE
- ☐ F. OTHER (SPECIFY BELOW)

PUMP INSTALLED

DATE (WRITE APPROPRIATE LETTER IN THE SPACE: A, B, C, D, E, F, G)

13

WELL NUMBER

13

WELL NUMBER

13

WELL NUMBER

13

WELL HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

13

LAND SURFACE

13

(NEAREST FOOT)

LOCATION OF WELL ON LOT (SHOW BUILDINGS, STRUCTURES, SUCH AS BUILDINGS, OR OTHER LAND MARKS AND DISTANCES TO WELL)

WELL 13

13

HOUSE

71-0079

Basalt dark in color very hard

72-100'

96 →

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 10/28/70
MO DA YR

* PERMIT NUMBER- CE-71-D101 *

ISSUED TO DRILLER-

CHARLES HAMILTON JR
RD 1 BOX 230
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 112

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

DELANEY, WILLIAM W
RD 1
NORTH EAST MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
J. J. BABEC SUBDIVISION, SECTION- , LOT- 11 ,
NEAR THE TOWN OF NORTH EAST

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
04/28/71. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

B 1 5132
 1-2-3 (SEQ. NO.)
 THIS NUMBER IS TO BE PUNCHED
 IN COLUMNS 3-5 ON ALL CARDS

STATE OF MARYLAND
 DEPARTMENT OF WATER RESOURCES
 STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403
 APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED
 (OWNER USE ONLY)
 102870

OWNER *Belaney*
 COL 13 LAST NAME
 STREET OR RFD *R.R. 1*
 COL 10
 POST OFFICE *North East, Md.*
 COL 17

William H. Belaney
 CE-71-0101

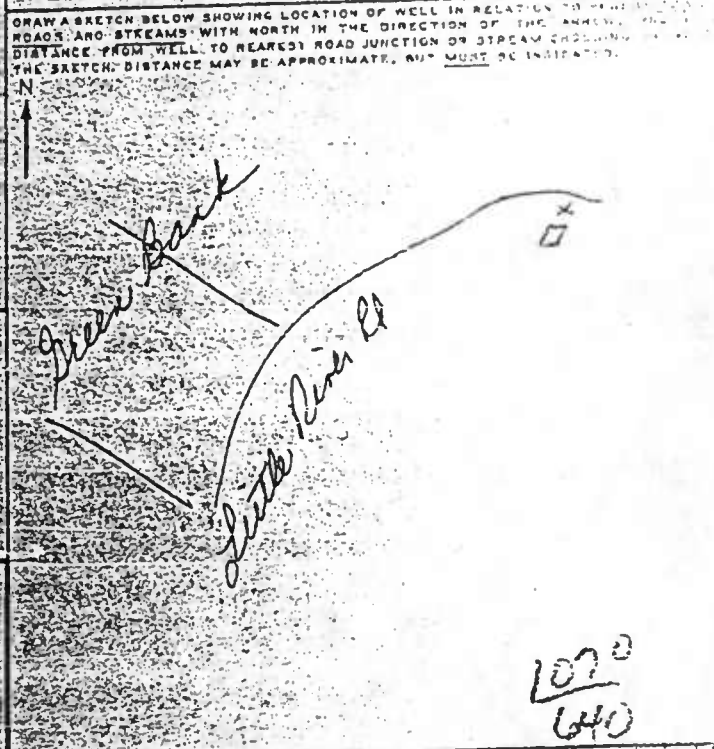
B 2 DRILLER INFORMATION
 1-2-3 (SEQ. NO.)
Charles Hamilton Jr. IDENTIFY NUMBER *112*
 4-5-6 (SEQ. NO.)
R.R. 1 Box 330 ADDRESS OR RFD
North East, Md. 21078 POST OFFICE
 DATE OF APPLICATION *10-23-70*

B 4 LOCATION OF WELL
 1-2-3 (SEQ. NO.)
 COUNTY *Cecil*
 SUBDIVISION *33*
 SECTION *46*
 NEAREST TOWN *North East*
 MILES FROM TOWN (ENTER 0 IF IN TOWN) *5*

B 3 WELL INFORMATION
 1-2-3 (SEQ. NO.)
 MAXIMUM PUMPING RATE (GALLONS PER MINUTE) *800*
 AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)
 USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ DOMESTIC, HOME USE (HOUSE OR HOUSEHOLD UNIT ONLY)
☐ FARM, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
 MUST HAVE STATE HEALTH DEPT. APPROVAL

B 5 DIRECTION FROM TOWN
 1-2-3 (SEQ. NO.)
 N NORTH E EAST NE NORTHEAST SE SOUTHEAST
 S SOUTH W WEST NW NORTHWEST SW SOUTHWEST
 NEAR WHAT ROAD *Little River*
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
 NORTH SOUTH
 DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) *40*

APPROXIMATE DEPTH OF WELL *110* FEET
 METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
 BORED OR AUGERED (CIRCLE)
 DRIVEN
 AIR ROTARY AIR PERCUSSION ☒ ROTARY ☐ DRILLIC-ROTARY
 CABLE REVENGE ROTARY
 REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)
☒ WELL WILL NOT REPLACE AN EXISTING WELL
☐ WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ WELL WILL REPLACE AN EXISTING WELL
 PLANT NUMBER OF WELL TO BE REPLACED (IF AVAILABLE)



APPROPRIATION (CIRCLE)
 ENGINEER REVIEW (CIRCLE)
 HEALTH DEPARTMENT REVIEW (CIRCLE)
 70-71-72-73-74-75-76-77-78-79

B 5 HEALTH DEPARTMENT APPROVAL (NOT TO BE FILLED IN BY DRILLER)
 COUNTY DEPT. OF HEALTH *Cecil*
 LONGITUDE *76 51 31 31 31*
 ELEVATION AT WELL HEAD (FEET) *0 0 1 0*
 TITLE *Supervising Sanitarian*
 NAME *Daniel S. [Signature]*

1070
 640

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 04/30/71
MO DA YR

* PERMIT NUMBER- CE-71-0238 *

ISSUED TO DRILLER-

PRESTON & HAMILTON
RD 1 BOX 230
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 112

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

RAPPOLD, EDWARD

NORTH-EAST MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREENBANK SUBDIVISION, SECTION- , LOT- ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

NONE.

THIS PERMIT IS VALID UNTIL
10/28/71 - A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DW COPY

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE-BLDC, ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

71-0238

6703
1 2 3 4 5 6 7 8 9
LINES NUMBERED TO BE COMPLETED
IN COLS 2-9 ON ALL LANCES

DATE RECEIVED
BOND ONE DOLLAR
OWNER
STREET OR RAIL
POST OFFICE

Proposed
North East Md.

CONTINUED
DATE *4-19-71*
LICENSE NUMBER *119*
RIGHT NAME *CHAS. HAMILTON JR*
SIGNATURE *Charles H. Hamilton Jr*

WELL INFORMATION
MAXIMUM PUMPING RATE GALLONS PER MINUTE
AVERAGE DAILY QUANTITY NEEDED GALLONS PER DAY
USE FOR WATER (CHECK ONE)
☒ DOMESTIC (HOUSEHOLD OR DOUBLE HOUSEHOLD ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MINERAL WATER SUPPLY
☐ PRIVATE WATER SUPPLY

APPROXIMATE DEPTH OF WELL
APPROXIMATE DIAMETER OF WELL
METHOD OF DRILLING USED
CASE
REPLACEMENT OR DEEPER WELL FOR PROPER PROTECTION

REVIEWER REVIEW
DISTRICT
APPROVAL

COUNTY
SUBDIVISION
SECTION
NEAREST TOWN
MILES FROM TOWN
DIRECTION FROM ROAD
ON WHICH SIDE OF ROAD
DISTANCE FT. IN ROAD
NEAREST TOWN



BOX NUMBER
NORTH COORDINATE
EAST COORDINATE

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403
WELL COMPLETION REPORT

71-0238

WELL NO. 3738
SEQUENCE NO. 1
DATE RECEIVED 9-3-71
DATE WELL COMPLETED 9-3-71
WELL DEPTH 75
WELL TYPE 15

OWNER RASPIEL
LAST NAME
POST OFFICE

SYNOPSIS OF RECORD

WELL LOG	DEPTH	WATER BEARING
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, GRAIN, THICKNESS AND IF WATER BEARING		
DESCRIPTION (SEE ADDITIONAL SHEETS IF NECESSARY)	FROM	TO
red clay & sand & gravel	0	30
red clay	30	65
sand	65	75

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
YES ☒ NO ☐
TYPE OF GROUTING MATERIAL (CIRCLE ONE)
CEMENT ☒ BENTONITE CLAY ☐
NO. OF BAGS 3 NO. OF POUNDS 15
GALLONS OF WATER 15
DEPTH OF GROUT SEAL (TO NEAREST FT.)
FROM 0 FT. TO 20 FT.
(ENTER 0 IF FROM SURFACE)

CASING RECORD
CASING TYPES (INSERT APPROPRIATE CODE BELOW)
STEEL ☒ CONCRETE ☐
PLASTIC ☐ OTHER ☐
MAIN CASING TYPE ☒ 4
NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH) 4
TOTAL DEPTH OF MAIN CASING (NEAREST FEET) 70

OTHER CASING (IF USED)
DIAMETER (INCH) FROM DEPTH (FEET) TO
C 1 1 1
H 1 1 1
C 1 1 1
H 1 1 1

SCREEN RECORD
SCREEN TYPE (INSERT APPROPRIATE CODE BELOW)
STEEL ☒ BRASS OR BRONZE ☐
PLASTIC ☐ OTHER ☐
C 2 2
DEPTH (NEAREST WHOLE FEET) FROM 30 TO 75

DEPTH (NEAREST WHOLE FEET)
FROM 30 TO 75
C 2 2
H 1 1
C 1 1
H 1 1

CIRCLE APPROPRIATE BOXES
A WELL WAS ABANDONED AND SEALED WHEN THE WELL WAS COMPLETED
ELECTRIC LOGS OBTAINED
COPY OF ELECTRIC LOG ATTACHED
WHEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE CAPTIONED PERMIT TO DRILL WELL, AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF
CHAS. HAMILTON
CLERK OF THE BOARD

PUMPING DATA
PUMPING RATE (GALLONS PER MINUTE) 37
METHOD USED TO MEASURE PUMPING RATE
WATER LEVEL (DISTANCE TO WATER) 75
BEFORE PUMPING 17
WHEN PUMPING 75
TYPE OF PUMP USED (CIRCLE ONE)
A 1 1
B 1 1
C 1 1
D 1 1
E 1 1
F 1 1
G 1 1
H 1 1
I 1 1
J 1 1
K 1 1
L 1 1
M 1 1
N 1 1
O 1 1
P 1 1
Q 1 1
R 1 1
S 1 1
T 1 1
U 1 1
V 1 1
W 1 1
X 1 1
Y 1 1
Z 1 1

PUMP INSTALLATION
TYPE OF PUMP (WRITE APPROPRIATE CODE - SEE ABOVE) A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES ☒ NO ☐
CAPACITY (GALLONS PER MINUTE) 37
PUMP HORSE POWER 37
PUMP COLUMN LENGTH (NEAREST FEET) 43
CASING HEIGHT (CIRCLE APPROPRIATE AND ENTER FEET) ABOVE ☒ BELOW ☐
LAND SURFACE 80 51

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE (HOUSE, SEPTIC TANKS, AND/OR OTHER) WITH MEASUREMENTS TO WELL (INDICATE NOT LESS THAN 20 FEET)
House
20'
DRIVER

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 05/25/71
MO DA YR

* PERMIT NUMBER- CE-71-0270 *

ISSUED TO DRILLER-

SHORE WELL DRILRS INC

DRILLER
ID. NUMBER- 189

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

PEEL, WALLACE
RD 1
NEWARK DE

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
CARPENTERS PT SUBDIVISION, SECTION- , LOT-
NEAR THE TOWN OF CHARLESTOWN.

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
11/25/71. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

71-027

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG. ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CC-71-100
FILE IN THE FILES OF THE

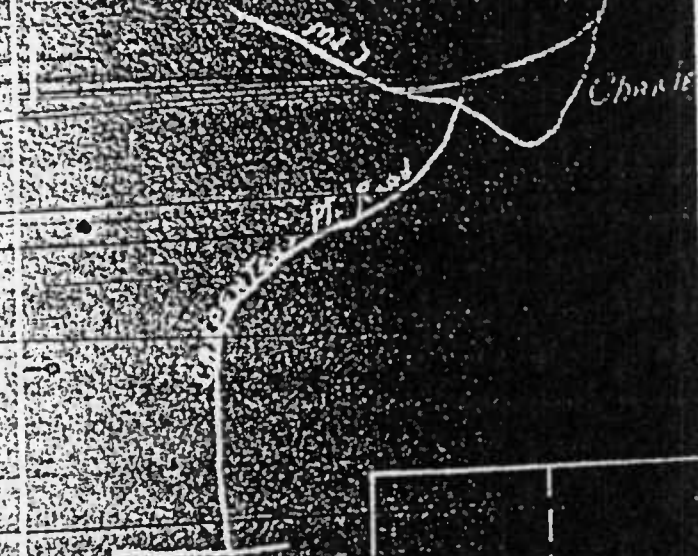
2837

APPLICANT: Carl Wallace
ADDRESS: R.D. #1
Newark Delaware

LOCATION OF WELL

SECTION 10
COUNTY: Cecil
SUBDIVISION: Carpenter Pt.
SECTION: 10
NEAREST TOWN: Chesapeake
MILES FROM TOWN (STATE OR INTOWN): 6
DIRECTION FROM TOWN (CIRCLE APPROPRIATE DIRECTIONS):
☒ NORTH ☐ EAST ☐ NORTHWEST ☐ WEST
☐ SOUTHWEST ☐ SOUTHEAST ☐ SOUTH
WHICH SIDE OF ROAD (CIRCLE APPROPRIATE SIDE):
☒ NORTH ☐ SOUTH
DISTANCE FROM ROAD (GIVE DISTANCE AND CIRCLE): 34

Sketch showing location of well in relation to nearby towns, roads, and streams. The sketch also shows the location of the well in relation to the road and the stream.



WELL NO. 7070
WELL DEPTH 620
WELL DIAMETER 6.5000
WELL AREA 1075000
WELL VOLUME 1075000
WELL TYPE 1075000
WELL STATUS 1075000

71-0270

WS-204 2/70

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
WELL COMPLETION REPORT

C 1 7445

(THIS NUMBER IS TO BE PUNCHED
IN COLUMNS 3-5 ON ALL CARDS)

DATE RECEIVED

6/1/72

DATE WELL COMPLETED

DEPTH OF WELL

133

FEET TO NEAREST FOOT

06083

0104711

Peel, Wallace

OWNER LAST NAME

POST OFFICE

STREET OR RD. # 1

WELL LOG
STATE THE KIND OF FORMATION PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS
IF NECESSARY)

FEET
FROM TO WATER
MARKING

0/2 top soil
2/10 red-clay-sand
10/63 yellow sand-clay
63/108 red-white-yellow clay
108/120 fine yellow sand
120/133 coarse yellow sand

GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE)

CEMENT CM PORTLAND CEMENT 45 50

NO. OF BAGS NO. OF ROUNDS

GALLONS OF WATER

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 48 FT. TO 54 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPE

STEEL CO CONCRETE

PLASTIC OT OTHER

MAIN CASING TYPE

NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH)

40 61 63 64 66 67 70

120

OTHER CASING (IF USED)

DIAMETER (INCH)

DEPTH (FEET)

FROM 120 TO 128

SCREEN RECORD

SCREEN TYPE

STEEL BR BRASS OR BRONZE

PLASTIC OT OTHER

SCREEN TYPE

STEEL BR BRASS OR BRONZE

PLASTIC OT OTHER

SCREEN TYPE

STEEL BR BRASS OR BRONZE

PLASTIC OT OTHER

SCREEN TYPE

STEEL BR BRASS OR BRONZE

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SCREEN TYPE

STEEL BR BRASS OR BRONZE

PLASTIC OT OTHER

SCREEN TYPE

STEEL BR BRASS OR BRONZE

PLASTIC OT OTHER

SCREEN TYPE

STEEL BR BRASS OR BRONZE

PLASTIC OT OTHER

MANUFACTURER

C 13

HOUSE NUMBER (IF ANY)

PHONE NUMBER (IF ANY)

METHOD USED FOR
TESTING WELL

WATER LEVEL

DEPTH OF PUMPING

WHEN PUMPING

TYPE OF PUMP USED

A AIR

C CENTRIFUGAL

J JET

TYPE OF PUMP

TYPE OF PUMP (WELL APPROXIMATE
BOX - SEE ABOVE)

WELLER WILL INSTALL PUMP
(CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE
(TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH
(NEAREST FOOT)

CASING HEIGHT

1 ABOVE

1 BELOW

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURES SUCH AS
SEPTIC TANKS, AND/OR OTHER LOTS AND
INDICATE NOT LESS THAN TWO DISTANCE
MEASUREMENTS TO WELL

Peel House

DATE

DRILLER

WELLER

DATE

WELLER

DATE

WELLER

DATE

WELLER

DATE

WELLER

DATE

WELLER

DATE

WELLER

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WELLER

DATE

WELLER

DATE

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 06/25/71
MO DA YR

* PERMIT NUMBER- CE-71-0607 *

ISSUED TO DRILLER-

SHORE WELL DRILRS INC

DRILLER

ID. NUMBER- 136

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

SPENGLER, RICHARD
RD 3
TOMAQUA PA

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREEN BANK SUBDIVISION, SECTION- , LOT- ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
12/25/71. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

71-0307

STATE OF PENNSYLVANIA
DEPARTMENT OF REVENUE
APPLICATION FOR PERMIT TO DRILL

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DATE RECEIVED 6/23/71

OWNER Speoples Church

ADDRESS RD #3

POST OFFICE TOMAZCO, PENNA.

9 1 1 CONTINUED

1 2 3 (SEQ. NO.) 1

DATE 6/23/71 LICENSE NUMBER 139

FIRST NAME Donald S. Newman DRILLER LAST NAME Newman

SIGNATURE Donald S. Newman

9 2 WELL INFORMATION

1 2 3 (SEQ. NO.) 1

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ DOMESTIC HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ FARMING, AGRICULTURE, IRRIGATION

☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

☐ MUNICIPAL WATER SUPPLY

☐ PRIVATE WATER COMPANY

☐ TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 4 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

☒ AIR-ROTARY ☐ AIR-PERCUSSION ☐ ROTARY (HYDRAULIC ROTARY)

☐ CABLE ☐ REVERSE ROTARY ☐ DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

☐ THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (OWN USE ONLY)

APPROXIMATE PERMIT NUMBER

APPROVED BY Donald S. Newman

COUNTY NAME DADE COUNTY NO. 1

APPROVED BY Donald S. Newman

9 3 LOCATION

1 2 3 (SEQ. NO.) 1

COUNTY DADE

SURVEY SECTION 139

SECTION 139

NEAREST TOWN Tomazco

MILES FROM TOWN 1.5

NEAR WHAT ROAD Wardens Road

ON WHICH SIDE OF ROAD WEST

DISTANCE FROM ROAD (CENTER DISTANCE - IF CIRCLE APPROPRIATE) 100

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO STREAMS WITH NORTH IN THE DIRECTION OF THE HEAD OF THE STREAM. ROAD JUNCTION OF STREAM SHOWING SHOULD BE INDICATED. WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER IN THE BOX.

BOX NUMBER 1090 620

NORTH COORDINATE 675000

EAST COORDINATE 1080000

ELEVATION AT WELL HEAD FEET 100

71-0307

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND

WELL COMPLETION REPORT

DEPT. OF WELL

WELL NO. 7938

DATE WELL COMPLETED 7/7/71

DATE REPORTED 7/7/71

WELL DEPTH 137

WELL LOCATION (TO NEAREST FOOT)

OWNER: Spengler, Richard

ADDRESS OR HVC: R.D. #3

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION	FEET	WATER BEARING
TYPE	FROM	TO
0/2 top soil		
2/10 yellow clay		
10/35 yellow sand-clay		
35/106 red-white clay		
106/132 fine yellow sand-clay		
132/135 coarse yellow sand		

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT C M BENTONITE CLAY 9 C

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 49 TO 54

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPE (CIRCLE APPROPRIATE CODE)

STEEL S T PLASTIC PL OTHER OT

MAIN CASING TYPE S T

NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH) 4

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 127

OTHER CASING (IF USED)

DIAMETER (INCH) 2 1/2

DEPTH (FEET) FROM 125 TO 132

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (CIRCLE APPROPRIATE CODE)

STEEL S T BRASS OR BRONZE BR HO PLASTIC PL OTHER OT

DIAMETER OF SCREEN (NEAREST INCH) 2

DEPTH (FEET) FROM 132 TO 137

SCREEN TYPE OR OPEN HOLE (CIRCLE APPROPRIATE CODE)

STEEL S T BRASS OR BRONZE BR HO PLASTIC PL OTHER OT

DIAMETER OF SCREEN (NEAREST INCH) 2

DEPTH (FEET) FROM 132 TO 137

SCREEN TYPE OR OPEN HOLE (CIRCLE APPROPRIATE CODE)

STEEL S T BRASS OR BRONZE BR HO PLASTIC PL OTHER OT

DIAMETER OF SCREEN (NEAREST INCH) 2

DEPTH (FEET) FROM 132 TO 137

SCREEN TYPE OR OPEN HOLE (CIRCLE APPROPRIATE CODE)

STEEL S T BRASS OR BRONZE BR HO PLASTIC PL OTHER OT

DIAMETER OF SCREEN (NEAREST INCH) 2

DEPTH (FEET) FROM 132 TO 137

SCREEN TYPE OR OPEN HOLE (CIRCLE APPROPRIATE CODE)

STEEL S T BRASS OR BRONZE BR HO PLASTIC PL OTHER OT

DIAMETER OF SCREEN (NEAREST INCH) 2

DEPTH (FEET) FROM 132 TO 137

SCREEN TYPE OR OPEN HOLE (CIRCLE APPROPRIATE CODE)

STEEL S T BRASS OR BRONZE BR HO PLASTIC PL OTHER OT

DIAMETER OF SCREEN (NEAREST INCH) 2

DEPTH (FEET) FROM 132 TO 137

WATER LEVEL (NEAREST FOOT)

REPORT DATE

TYPE OF PUMP USED (CIRCLE BOX)

A AIR C CENTRIFUGAL J JET

PUMP CAPACITY (GALLONS PER MINUTE TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE CODE)

ABOVE + BELOW -

LAND SURFACE 1

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

WELL LOCATION (TO NEAREST FOOT)

WELL DEPTH 137

WELL LOCATION (TO NEAREST FOOT)

WELL DEPTH 137

WELL LOCATION (TO NEAREST FOOT)

WELL DEPTH 137

WELL LOCATION (TO NEAREST FOOT)

WELL DEPTH 137

WELL LOCATION (TO NEAREST FOOT)

WELL DEPTH 137

WELL LOCATION (TO NEAREST FOOT)

WELL DEPTH 137

CIRCLE APPROPRIATE BOXES

WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

ELECTRIC LOG OBTAINED

COPIES OF ELECTRIC LOG ATTACHED

DRILLER'S NAME: Donald S. Newnam

DATE: 7/7/71

Spengler House

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 07/13/71
MO DA YR

* PERMIT NUMBER- CE-12-0015 *

ISSUED TO DRILLER-

SLAUCH, R W & SONS
RD 1 BOX 11
OXFORD PA 19363

DRILLER
ID. NUMBER- 55

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

ZERBE, EUGEN
GREEN BANK RD
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREEN BANK SUBDIVISION, SECTION- , LOT-
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
01/13/72. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

72-0016

WATER 1 3-70

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUREAU OF WATER RESOURCES
APPLICATION FOR PERMIT TO DRILL

84-7678

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DATE RECEIVED
LOCAL USE ONLY

OWNER

CUT IN LAST NAME

STREET

OR RFD

COL 26

POST

OFFICE

COL 33

ZERBE

GREEN BANK RD

CHARLESTOWN

6-13

B 1 CONTINUED

DRILLER INFORMATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DATE

LICENSE

NUMBER

JULY 12-71

66

LEON

SLAUGH

FIRST NAME

DRILLER

LAST NAME

SIGNATURE

[Signature]

B 2

WELL INFORMATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

5

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

DOMESTIC HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

FARMING, AGRICULTURE, IRRIGATION

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

MUNICIPAL WATER SUPPLY

PRIVATE WATER COMPANY

YES

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL

60

FEET

APPROXIMATE DIAMETER OF DRIFT

5

INCHES

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED OR AUGERED

JETTED

DRIVEN

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

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NOTARY (HYDRAULIC, NOTARY)

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AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

AIR ROTARY

AIR-BENCHER

NOTARY (HYDRAULIC, NOTARY)

B 3

COUNTY

ALLEGANY

SECTION

NEAREST TOWN

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NUMBER

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SEQUENCE NO. 8399
 (200. NO.)
 (THIS NUMBER IS TO BE FURNISHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
 DEPARTMENT OF WATER RESOURCES
 STATE OFFICE BLOC., ANNAPOLIS, MARYLAND 21403
 WELL COMPLETION REPORT

72-0016

DATE RECEIVED (MAY USE ONLY) AUG. 8-71
 DATE WELL COMPLETED

DEPTH OF WELL 8'3"
 (22 ITS NEAREST FOOT)

081871
 8-13 280971

OWNER ZERBE
 LAST NAME
 STREET OR RFD GREEN BANK RD.
 POST OFFICE

WELL LOG
 STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER-BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FROM	TO	THICKNESS (FEET)
BROWN CLAY	0	7	
ORANGE SANDY CLAY	7	30	
WHITE CLAY	30	34	
RED CLAY	34	45	
WHITE CLAY	45	47	
GRAY CLAY	47	64	
FINE WHITE SAND	64	80	
#10 SAND	80	84	

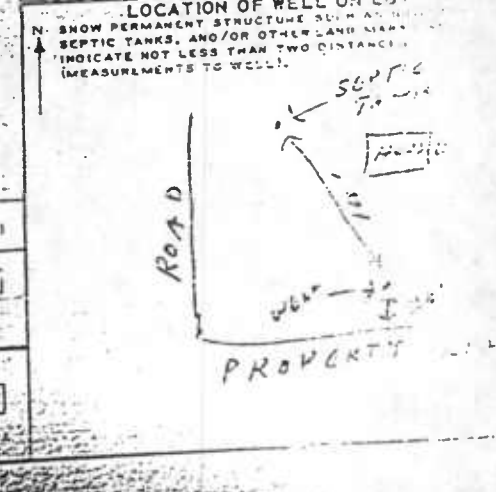
GROUTING RECORD
 WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
 TYPE OF GROUTING MATERIAL (CIRCLE BOX)
 CEMENT ☒ M BENTONITE CLAY ☐ C
 NO. OF BAGS 45 40
 NO. OF POUNDS
 TIGHT AROUND CASING
 GALLONS OF WATER
 DEPTH OF GROUT SEAL (TO NEAREST FOOT)
 FROM 22 FT. TO 24 FT.
 (ENTER 0 IF FROM SURFACE)

CASING RECORD
 CASING TYPES
 INSERT APPROPRIATE CODE BELOW
 ST STEEL CO
 PL PLASTIC OT OTHER
 MAIN CASING TYPE
 NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH) 5
 TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 78
 OTHER CASING (IF USED)
 DIAMETER (INCH) DEPTH (FEET) FROM TO

SCREEN RECORD
 SCREEN TYPE (CIRCLE BOX)
 INSERT APPROPRIATE CODE BELOW
 ST STEEL BR BRASS OR BRONZE
 PL PLASTIC OT OTHER
 DEPTH (FEET) FROM TO
 5 78 83

PUMPING RECORD
 HOW WAS PUMPING TEST CONDUCTED?
 PUMPING RATE
 GALLONS PER MINUTE
 METHOD USED TO MEASURE PUMPING RATE
 WATER LEVEL (NEAREST FOOT)
 BEFORE PUMPING
 DURING PUMPING
 AFTER PUMPING
 TYPE OF PUMPED USED
 A AIR B ELECTRIC
 C CENTRIFUGAL D ROTARY
 J JET E OTHER

PUMP INSTALLATION
 TYPE OF PUMP (WRITE APPROPRIATE CODE BOX - SEE ABOVE: A, C, J, R, W, X)
 DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
 CAPACITY:
 GALLONS PER MINUTE (TO NEAREST GALLON)
 PUMP HORSE POWER
 PUMP COLUMN LENGTH (NEAREST FOOT)
 CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER NUMBER)
 ABOVE LAND SURFACE 2
 BELOW 49



CIRCLE APPROPRIATE BOXES
 WAS WELL ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
 CERTIFICATE OBTAINED
 TOP OF ELECTRIC LOG ATTACHED
 WHEREAS, CERTIFICATE THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE CAPTIONED PERMIT TO DRILL WELL, AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.
 DRILLER'S NAME
 LEO T. SLAUGH
 SIGNATURE

WELL DEPTH (NEAREST WHOLE FOOT)
 83
 DIAMETER OF SCREEN (NEAREST INCH)
 5
 NATURAL DEVELOPMENT
 DOWN USE ONLY (DO NOT TO BE FILLED IN BY DRILLER)
 74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

104-0

ISSUE DATE- 08/24/71
MD DA YR

* PERMIT NUMBER- DE-72-0085 *

ISSUED TO DRILLER-

PRESTON & HAMILTON
RD 1 BOX 230
HAVRE DE GRACE MD 21073

DRILLER
ID. NUMBER- 110

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

CLEMENS, HAROLD
2208 ARCH RD.
NORRISTOWN PA 19401

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREENBANK SUBDIVISION, SECTION- , LOT-
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
02/24/72. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DHR COPY

WELL 3-75

5582

STATE OF KANSAS
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUREAU OF WATER RESOURCES
APPLICATION FOR PERMIT TO DRILL WELL

72-0085

DATE RECEIVED
DOWN 100 0557

OWNER Chambers
STREET OR RPO 2208 Olive St.
CITY Lawrence, Mo.
COUNTY Lawrence

B 1 CONTINUED
DATE 8-19-71 LICENSE NUMBER 112
FIRST NAME CHAS LAST NAME HAMILTON JR
SIGNATURE Charles H. Hamilton Jr.

B 2 WELL INFORMATION
MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 800
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 800

USE FOR WATER (CHECK APPROPRIATE BOX)
☒ DOMESTIC HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
☐ TEST

APPROXIMATE DEPTH OF WELL 15 FEET
APPROXIMATE DIAMETER OF WELL 4 INCHES (NEAREST INCH)
METHOD OF DRILLING USED (CHECK APPROPRIATE METHOD)
☒ WORKED OVER (SEE LISTED) ☐ DRIVEN
☐ AIR-ROTARY ☐ AIR-RECUSSION ☒ ROTARY ☐ MABLE ROTARY
☐ CABLE ☐ REVERSE ROTARY ☐ DRIVE POINT
OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CHECK APPROPRIATE BOX)
☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☒ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEMED AN EXISTING WELL

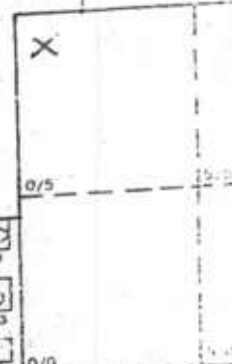
NOT TO BE FILLED IN BY DRILLER (SEE KEY)
APPROPRIATE PERMIT NUMBER 1080
COUNTY Lawrence

B 4 CONTINUED
HEALTH DEPARTMENT APPROVAL
COUNTY NAME Lawrence COUNTY NO. 1080
DATE 8-20-71

B 3
COUNTY Lawrence
SUBDIVISION 1
SECTION 1
NEAREST TOWN Lawrence
MILES FROM TOWN (ENTER IF OTHER)
B 4
NORTH ☐ EAST ☐
SOUTH ☐ WEST ☒
NE - WHAT ROAD Carrollton
ON WHICH SIDE OF ROAD (CHECK APPROPRIATE BOX)
DISTANCE FROM ROAD (ENTER DISTANCE AND SCALE APPROPRIATE BOX)

SKETCH A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO
STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, SHOWING THE
ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH, AND THE
WELL LOCATION IN THE BOX BELOW, AND THE BOX NUMBER FROM THE WELL

BOX NUMBER 1080
620
NORTH COORDINATE 425000
EAST COORDINATE 7080000
ELEVATION (WELL HEAD) 61 65 67 68



101.25

C 1 2281
 1 2 3 4 5 6
 (THIS NUMBER IS TO BE PUNCHED
 IN COLUMNS 3-6 ON ALL CARDS)

STATE OF MARYLAND
 DEPARTMENT OF WATER RESOURCES
 STATE OFFICE BLDG., ANNEAPOLIS, MARYLAND
WELL COMPLETION REPORT

72-0085

DATE RECEIVED
 (FOR USE ONLY)
 2-1-72
 DATE WELL COMPLETED

091472
 030172

OWNER
 LAST NAME
 Coleman

STREET OR RFD

DEPTH OF WELL
 45

WELL LOG
 STATE THE KIND OF FORMATIONS PENETRATED, THEIR
 COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	TO
red clay, sand, gravel 0 20		
gravel & sand 20 45		

GROUTING RECORD
 WELL HAS BEEN GROUTED
 (CIRCLE APPROPRIATE BOX)
 TYPE OF GROUTING MATERIAL (CIRCLE BOX)
 CEMENT ☒ M BENTONITE CLAY ☐
 NO. OF BAGS 2 NO. OF POUNDS 10
 GALLONS OF WATER 10
 DEPTH OF GROUT SEAL (TO NEAREST FOOT)
 FROM 0 FT. TO 15 FT.
 (ENTER 0 IF FROM SURFACE)

CASING RECORD
 INSERT APPROPRIATE CODE BELOW
 STEEL ☒ CONCRETE ☐
 PLASTIC ☐ OTHER ☐
 MAIN CASING TYPE 5 T NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH) 4 TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 40
 60 61 62 63 64 65 66 67 68 69 70

OTHER CASING (IF USED)
 DIAMETER (INCH) DEPTH (FEET)
 FROM TO

SCREEN RECORD
 SCREEN TYPE OR OPEN HOLE
 INSERT APPROPRIATE CODE BELOW
 STEEL ☒ BRASS ☐ OPEN H. LE. ☐
 PLASTIC ☐ OTHER ☐

DEPTH (NEAREST WHOLE FOOT)
 37 40 45
 38 39 41 42 43 44 46 47 48 49 50 51

DIAMETER OF SCREEN (NEAREST INCH)
 FROM 56 TO 60
 GRAVEL PACK
 IF WELL OR LINED WAS A FLOWING WELL CIRCLE OF
 SHOW-USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99

WATER LEVEL
 TYPE OF PUMPED USED
 AIR ☒ CENTRIFUGAL ☐ JET ☐
 PUMP INSTALLATION
 TYPE OF PUMP (WRITE APPROPRIATE BOX - SEE ABOVE) A, C, J, K
 DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
 CAPACITY:
 GALLONS PER MINUTE (TO NEAREST GALLON)
 PUMP HORSE POWER
 PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (NEAREST WHOLE FOOT)
 ABOVE ☒ BELOW ☐
 LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURES, SCOTIC TANKS, AND/OR OTHER LAND MARKS INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

45' →

CIRCLE APPROPRIATE BOXES
☐ WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
☐ COPY OF LOG OBTAINED
☐ COPY OF ELECTRIC LOG ATTACHED
 I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL
 CONDITIONS STATED ON THE ABOVE CAPTIONED PERMIT
 TO DRILL WELL, AND THAT INFORMATION CONTAINED
 THEREIN IS TRUE, ACCURATE, AND COMPLETE
 TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND
 BELIEF.
 DRILLER'S NAME
 DATE
 SIGNATURE

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 09/07/71
MO DA YR

* PERMIT NUMBER- CE-72-0103

ISSUED TO DRILLER-

BROWN, M E & SONS
RFD 2
NOTTINGHAM PA 19362

DRILLER

ID. NUMBER-

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

PORTER, GEORGE

PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE MD

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
03/07/72. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 09/07/71
MD DA YR

* PERMIT NUMBER- CE-72-2104 *

ISSUED TO DRILLER-

BROWN, H E & SONS
RFD 2
NOTTINGHAM PA 19362

DRILLER
ID. NUMBER- 39

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

PORTER, GEORGE
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE MD

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
03/07/72. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

3463
L-2-A (REV. 10-1-60)
THIS NUMBER IS TO BE REPRODUCED
IN COPIES, 3-4 OF EACH COPY

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLOC, ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

72-0104

090723

OWNER: POWELL, G. REES
LOC TO: LAST NAME
ADDRESS:
ON RFD:
CITY:
OFFICE:
COC ST:

B.1. CONTINUED
L-2-B (REV. 10-1-60)
DATE: 8-1-71
LICENSE NUMBER: 36
FIRST NAME: MAURICE E. BROWN
DRILLER: MAURICE E. BROWN
LAST NAME:
SIGNATURE: MAURICE E. BROWN

B.2. WELL INFORMATION
L-2-C (REV. 10-1-60)
MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 100
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 100
USE FOR WATER (CIRCLE APPROPRIATE BOX):
☒ DOMESTIC (HOME USE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
☐ TEST
APPROXIMATE DEPTH OF WELL: 90 FEET
APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)
METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD):
☒ BORED OR AUGERED (SEE L-2-D)
☐ DRIVEN
☐ AIR PERCUSSION
☐ ROTARY
☐ CABLE
☐ OTHER (SEE L-2-D)
REPLACEMENT OR DEEPENING WELLS (CIRCLE APPROPRIATE BOX):
☒ NEW WELLS UNLESS REPLACEMENT OF EXISTING WELL
☐ EXISTING WELLS WHICH HAVE BEEN ABANDONED AND SEALED

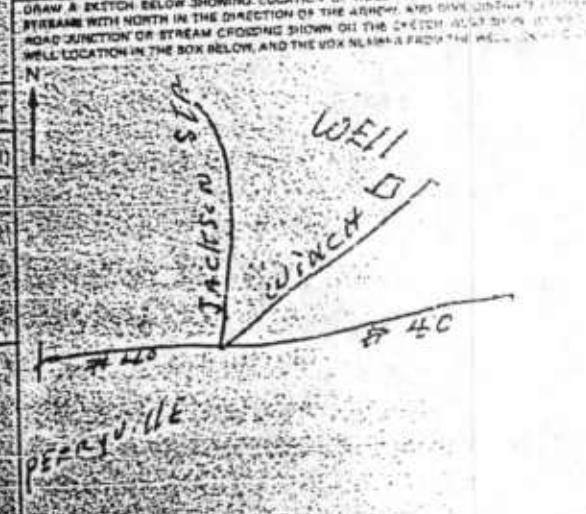
APPROXIMATE DEPTH OF WELL: 90 FEET
APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)
METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD):
☒ BORED OR AUGERED (SEE L-2-D)
☐ DRIVEN
☐ AIR PERCUSSION
☐ ROTARY
☐ CABLE
☐ OTHER (SEE L-2-D)

REPLACEMENT OR DEEPENING WELLS (CIRCLE APPROPRIATE BOX):
☒ NEW WELLS UNLESS REPLACEMENT OF EXISTING WELL
☐ EXISTING WELLS WHICH HAVE BEEN ABANDONED AND SEALED

NOT TO BE FILLED IN BY DRILLER (OWN USE ONLY)
ENGINEER REVIEW
DATE: 8-1-71
CITY: ANNAPOLIS
COUNTY: ANNAPOLIS

HEALTH DEPARTMENT APPROVAL
DATE: 8-1-71
COUNTY: ANNAPOLIS
APPROVED BY: MAURICE E. BROWN

B.3. LOCATION
L-2-D (REV. 10-1-60)
COUNTY: ANNAPOLIS
SUBDIVISION: 23
SECTION: 14
NEAREST TOWN: ANNAPOLIS
MILES FROM TOWN (CENTER OF TOWN): 1.30
DIRECTION OF ROAD (CIRCLE APPROPRIATE BOX):
☒ NORTH
☐ EAST
☐ SOUTH
☐ WEST
NEAR WHAT ROAD: JACKSON STREET
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX):
☒ NORTH
☐ SOUTH
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 130



BOX NUMBER: 1070
630
NORTH COORDINATE: 435000
EAST COORDINATE: 1070000
ELEVATION (FEET): 105-05

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 09/07/71
MO DA YR

* PERMIT NUMBER- CE-72-0105 *

ISSUED TO DRILLER-

BROWN, M E & SONS
RFD 2
NOTTINGHAM PA 19362

DRILLER
ID. NUMBER- 38

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

PORTER, GEORGE
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
03/07/72. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403
APPLICATION FOR PERMIT TO DRILL WELL

72-0105

DATE RECEIVED
JUN 15 1972

040232

OWNER
JAMES E. JONES

ADDRESS - LAST NAME

THREET

COL 38

DEPT

OFFICE

ENG 37

8-1 CONTINUED

DRILLER INFORMATION

2-1 SEC. NO. 1

LICENSE
NUMBER 77

DATE 6-1-72

NAME OF DRILLER

FIRST NAME

DRILLER

LAST NAME

SIGNATURE

8-2

WELL INFORMATION

1-1 SEC. NO. 1

MAXIMUM PUMPING RATE GAL/SEC PER MINUTE

AVERAGE DAILY QUANTITY NEEDED (GAL/24 HRS)

USE FOR WATER (CHECK APPROPRIATE BOX)

☒ DOMESTIC (HOUSEHOLD OR BUSINESS HOUSEHOLD USE ONLY)

☐ FARMING (AGRICULTURE OR LIVESTOCK)

☐ INDUSTRIAL (FEDERAL, STATE AND FEDERAL GOVERNMENT)

☐ MUNICIPAL WATER SUPPLY

☐ OTHER WATER COMPANY

☐ TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL

APPROXIMATE DIAMETER OF WELL

INCHES

METHOD OF DRILLING

☐ MASONRY

☐ STEEL PIPE

☐ OTHER

☐ DRIVE POINT

REPLACEMENT OR DEEPEND WELLS (CHECK APPROPRIATE BOX)

☐ YES

☐ NO

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STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 11/09/71
MO DA YR

* PERMIT NUMBER- CE-72-0194 *

ISSUED TO DRILLER-

DELMARVA DRLS CO INC
P O BOX 125
BRIDGEVILLE DE 19933

DRILLER
ID. NUMBER- 236

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

TRIBBLE, LEE R
RD 1
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
05/09/72. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

NO CR

DWR COPY

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403
APPLICATION FOR PERMIT TO DRILL WELL

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED
12-23-77
OWNER
EDD 10, INCORPORATED
STREET
ON RD
PO BOX
PERRYVILLE MD

EDD 10, INCORPORATED
RD I
PERRYVILLE MD

72-0194

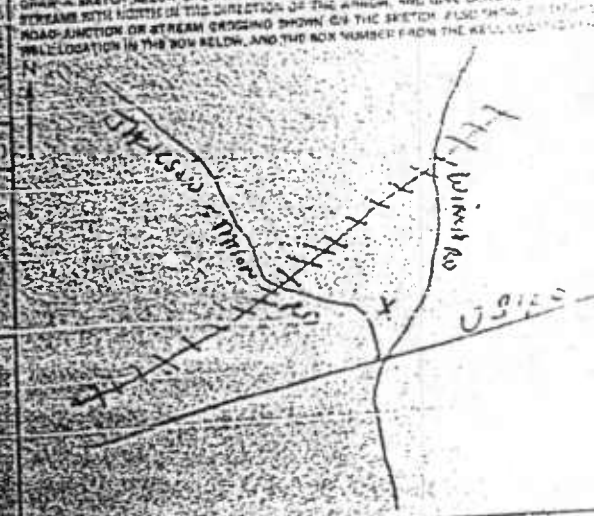
B-1 CONTINUED
DATE 5/4/77
LICENSE NUMBER 236
FIRST NAME GEORGE KECKLEY
DRILLER
LAST NAME
SIGNATURE George Keckley

B-3
COUNTY
SUBDIVISION
SECTION
NEAREST TOWN PERRYVILLE
MILES FROM TOWN (ENTER 0 FOR TOWN) 7.3

B-2
WELL INFORMATION
AVERAGE DAILY QUANTITY OF WATER REQUIRED FOR USE 200
USE FOR WATER (CIRCLE APPROPRIATE BOX)
DOMESTIC (FOR DRINKING OR DOMESTIC HOUSEHOLD USE ONLY)
INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
MUNICIPAL WATER SUPPLY
MUST HAVE STATE HEALTH DEPT. APPROVAL
MUNICIPAL WATER COMPANY

B-4
DIRECTION FROM ROAD
NORTH EAST SOUTHWEST
SOUTH WEST NORTHEAST
TACKESSON STATION
ON WHICH SIDE OF ROAD
CIRCLE APPROPRIATE BOX
DISTANCE FROM ROAD
(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 5.3

APPROXIMATE DEPTH OF WELL 120 FEET
APPROXIMATE DIAMETER OF WELL 10 INCHES (NEAREST INCH)
WELL LOCATION (CIRCLE APPROPRIATE BOX)
REPLACEMENT OF DEEPENED WELLS (CIRCLE APPROPRIATE BOX)



REPLACEMENT OF DEEPENED WELLS (CIRCLE APPROPRIATE BOX)
WELL LOCATION (CIRCLE APPROPRIATE BOX)

BOX NUMBER 1070
630
NORTH COORDINATE 635000
EAST COORDINATE 707000
COUNTY NOT

WELL UNDER DEPARTMENT APPROVAL
COUNTY NOT

103

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

100-50

PERMIT TO DRILL WELL

ISSUE DATE- 05/03/72
MO DA YR

* PERMIT NUMBER- CE-72-0354 *

ISSUED TO DRILLER-

PRESTON & HAMILTON
RD 1 BOX 230
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 112

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

SOMMERS, C E
567 NEWTOWN RD
NEWTOWN SQ PA 19073

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
11/03/72. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

EMERGENCY NO. IN CASE OF

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

04336

THIS NUMBER IS TO BE FURNISHED
TO ALL DRILLERS OF ALL SIZES

DATE RECEIVED
(BY DRILLER ONLY)

050372

OWNER *Summer*
STREET OR RD. *567 Newton Rd.*
CITY *Newton Sp, Pa.*
STATE *Pa.*
ZIP *19073*

72 0354

DRILLER INFORMATION

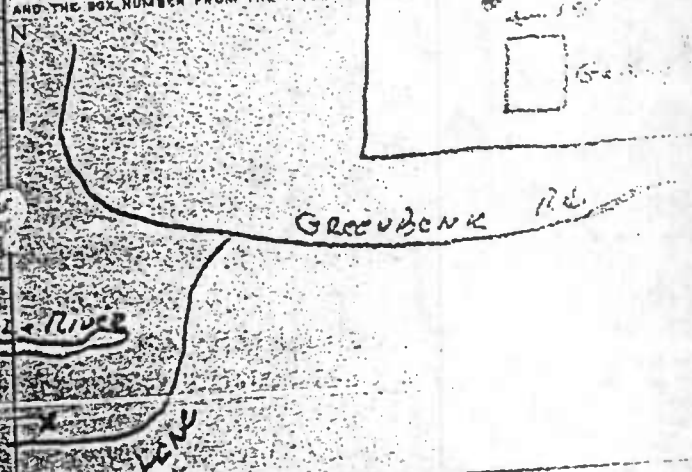
DATE *4-28-72* LICENSE NUMBER *112*
NAME *CHAS. HAMILTON, JR.*
SIGNATURE *Charles H. Hamilton Jr.*

WELL INFORMATION

MAXIMUM PUMPING RATE *800*
AVERAGE DAILY QUANTITY NEEDED *800*
USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ DOMESTIC ☐ INDUSTRIAL ☐ AGRICULTURAL ☐ OTHER
MUNICIPAL WATER SUPPLY ☐
WATER TREATMENT ☐
WELL DEPTH *160* FEET
APPROXIMATE DIAMETER OF WELL *8 1/4* INCHES
METHOD OF DRILLING USED ☒ DRIVEN ☐ OTHER
CABLE ☐ OTHER ☐

COUNTY *Carroll*
SUBDIVISION *23*
SECTION *44*
NEAREST TOWN *Charlottesville*
MILES FROM TOWN (ENTER 0 IF IN TOWN)
DIRECTION FROM TOWN
NORTH ☐ SOUTH ☐ EAST ☐ WEST ☒
NEAR WHAT ROAD *Greenbank*
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
NORTH ☐ SOUTH ☒
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)
300

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO
ROADS AND STREAMS WITH NORTH IN THE CENTER OF THE SKETCH
TANCE FROM WELL TO NEAREST ROAD (ENTER DISTANCE IN FEET)
SKETCH ALSO SHOW BY MEANS OF AN "X" THE WELL LOCATION
AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



REPLACEMENT OR DEEPEND WELLS (CIRCLE APPROPRIATE BOX)
☒ YES ☐ NO
THE WELL IS NOT TO BE REPLACED OR DEEPEND IF AVAILABLE
THE WELL IS NOT TO BE REPLACED OR DEEPEND IF AVAILABLE
THE WELL IS NOT TO BE REPLACED OR DEEPEND IF AVAILABLE

NOT TO BE FILLED IN BY DRILLER (DRILLER ONLY)
APPROVED BY *[Signature]*
DATE *4-28-72*

BOX NUMBER *1080*
COORDINATE *630000*
ELEVATION AT WELL HEAD (FEET) *630000*

106-53

W-100 (REV. 5-72)
C 1 06247
SEQUENCE NO.
FOR USE ONLY
1 2 3 (REQ. NO.)
(THIS NUMBER IS TO BE PUNCHED
IN C.O.G. 3-5 ON ALL CARDS.)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
WELL COMPLETION REPORT

72-0354

DATE RECEIVED
ID USE ONLY
8-13
8-10-72

DATE WELL COMPLETED
8/3/72
8-10-72

DEPTH OF WELL

75

22 TO NEAREST FOOT 26

DRILLER IDENTIFICATION NO.

OWNER

LAST NAME

567 Meadow Rd.

POST OFFICE

STREET OR RFD

WELL DESCRIPTION

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING.

DESCRIPTION (USE ADDITIONAL SHEETS
IF NECESSARY)

FEET

FROM TO

CHECK IF

WATER BEARING

red clay

pink sand

red clay

red clay

red clay

red clay

red clay

red clay

red clay

red clay

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GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT (C) BENTONITE CLAY (B)

NO. OF BAGS 3

NO. OF POUNDS 15

GALLONS OF WATER

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 0 FT. TO 20 FT.

(ENTER 0 IF FROM SURFACE)

CASING TYPE

(CIRCLE APPROPRIATE BOX)

STEEL (S) CONCRETE (C)

PLASTIC (P) OTHER (O)

MAIN CASING TYPE

NOMINAL DIAMETER OF MAIN CASING

TOP MAIN CASING (NEAREST INCH)

TOTAL DEPTH OF MAIN CASING

(NEAREST FOOT)

57 4 70

OTHER CASING (IF USED)

DIAMETER (INCH)

DEPTH (FEET)

FROM TO

SCREEN TYPE

OR OPEN HOLE

(CIRCLE APPROPRIATE BOX)

STEEL (S) BRASS (B) GREEN HOLE (G)

PLASTIC (P) OTHER (O)

SCREEN TYPE

OR OPEN HOLE

(CIRCLE APPROPRIATE BOX)

STEEL (S) BRASS (B) GREEN HOLE (G)

PLASTIC (P) OTHER (O)

SCREEN TYPE

OR OPEN HOLE

(CIRCLE APPROPRIATE BOX)

STEEL (S) BRASS (B) GREEN HOLE (G)

PLASTIC (P) OTHER (O)

SCREEN TYPE

OR OPEN HOLE

(CIRCLE APPROPRIATE BOX)

STEEL (S) BRASS (B) GREEN HOLE (G)

PLASTIC (P) OTHER (O)

SCREEN TYPE

OR OPEN HOLE

(CIRCLE APPROPRIATE BOX)

STEEL (S) BRASS (B) GREEN HOLE (G)

PLASTIC (P) OTHER (O)

SCREEN TYPE

OR OPEN HOLE

(CIRCLE APPROPRIATE BOX)

STEEL (S) BRASS (B) GREEN HOLE (G)

PLASTIC (P) OTHER (O)

SCREEN TYPE

OR OPEN HOLE

(CIRCLE APPROPRIATE BOX)

STEEL (S) BRASS (B) GREEN HOLE (G)

PLASTIC (P) OTHER (O)

SCREEN TYPE

OR OPEN HOLE

(CIRCLE APPROPRIATE BOX)

STEEL (S) BRASS (B) GREEN HOLE (G)

PLASTIC (P) OTHER (O)

SCREEN TYPE

OR OPEN HOLE

(CIRCLE APPROPRIATE BOX)

STEEL (S) BRASS (B) GREEN HOLE (G)

PLASTIC (P) OTHER (O)

SCREEN TYPE

OR OPEN HOLE

(CIRCLE APPROPRIATE BOX)

STEEL (S) BRASS (B) GREEN HOLE (G)

PLASTIC (P) OTHER (O)

SCREEN TYPE

OR OPEN HOLE

(CIRCLE APPROPRIATE BOX)

STEEL (S) BRASS (B) GREEN HOLE (G)

PLASTIC (P) OTHER (O)

C 3

1 2 3 (REQ. NO.)

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE

GALLONS PER MINUTE TO NEAREST GPM

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (DISTANCE TO NEAREST FOOT)

BEFORE PUMPING

75

WHEN PUMPING

22

TYPE OF PUMPED USED (FOR PUMPING TEST)

A AIR P HSTON

C CENTRIFUGAL R ROTARY

J JET S SUBMERSIBLE

75

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, J, R, S, P, H, O, T)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY

GALLONS PER MINUTE (TO NEAREST GPM)

31

PUMP HORSE POWER

37

PUMP COLUMN LENGTH (NEAREST FOOT)

43

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT IN FEET)

ABOVE LAND SURFACE

BELOW LAND SURFACE

49

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

WELL

PRIVATE DRIVE

700 S. 1st St.

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700 S. 1st St.

700 S. 1st St.

107-20

DWR COPY
STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 08/11/72
MD DA YR

* PERMIT NUMBER- CC-73-0063 *

ISSUED TO DRILLER-

SHORE WELL DRILRS INC

DRILLER
ID. NUMBER- 136

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

ANDRICHYN, CHARLES
CARPENTERS PT
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
CHESNUT POINT SUBDIVISION, SECTION- , LOT- ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
02/11/73. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

C1 00472

SEQUENCE NO. (DOWN HOLE ONLY)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
WELL COMPLETION REPORT

DEPTH OF WELL

78

090172

DATE WELL COMPLETED

6/8/50

73-0063

OWNER Andrick, Charles

LAST NAME

Magnum Point

STREET OR RFD

WELL DESCRIPTION

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)

FEET FROM TO CHECK IF WATER BEARING

0/2 top soil
2/17 red-white clay sand
17/62 yellow-white clay-sand
62/78 coarse yellow-white sand

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT C M BENTONITE CLAY B C 45 45

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FEET TO (ENTER IF FROM SURFACE)

CASING RECORD
(INSERT APPROPRIATE CODE BELOW)
STEEL S T CONCRETE C O PLASTIC P L OTHER O T

MAIN CASING TYPE S T NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH) 4 TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 74

OTHER CASING (IF USED) DIAMETER (INCH) S T 2 DEPTH (FEET) FROM TO 71 73

SCREEN RECORD
(INSERT APPROPRIATE CODE BELOW)
STEEL S T BRASS OR BRONZE B R OPEN HOLE H O PLASTIC P L OTHER O T

DEPTH (NEAREST WHOLE FOOT) FROM TO 73 78
SLOT SIZE 1. 15 3.

DIAMETER OF SCREEN 3 (NEAREST INCH) FROM TO

GRAVEL PACK

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX

OWNER USE ONLY (NOT TO BE FILLED IN BY DRILLER)
TELESCOPE CASING 7 LOG INDICATOR 72 OTHER DATA AVAILABLE 74 75 76

WATER LEVEL

TYPE OF PUMPED USED

PUMP INSTALLED

TYPE OF PUMP (CIRCLE APPROPRIATE BOX) - SEE ABOVE

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

ABOVE LAND SURFACE BELOW 49

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DIMENSIONS (MEASUREMENTS TO WELL).

55' X 40' House

CIRCLE APPROPRIATE BOXES
A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLER'S NAME

Donald S. Newman

SIGNATURE

TELESCOPE CASING 7 LOG INDICATOR 72 OTHER DATA AVAILABLE 74 75 76

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 09/15/72
MO DA YR

* PERMIT NUMBER- CP-73-0116 *

ISSUED TO DRILLER-

BROWN, M E & SONS
RFD 2
NOTTINGHAM PA 19362

DRILLER
ID. NUMBER- 30

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

PORTER, GEORGE

PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE MD

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
03/15/73. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

SEQUENCE NO. (DWR USE ONLY)
 1 2 3 (SEQ. NO.) 6
 03222
 (THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3-6 ON ALL CARDS)

STATE OF MARYLAND
 DEPARTMENT OF WATER RESOURCES
 STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
 APPLICATION FOR PERMIT TO DRILL WELL

66-75-0116
 FILE IN THE FOLLOWING MAP

DATE RECEIVED (DWR USE ONLY)
 091572

OWNER PORTER
 COL 15 LAST NAME

STREET OR RFD
 COL 30

POST OFFICE
 COL 57

PERRYVILLE, M.D.

6-13
 B 1 CONTINUED DRILLER INFORMATION

1 2 3 (SEQ. NO.) 6
 DATE SEPT. 5, 1972 LICENSE NUMBER 39
 77 80

MAURICE BROWN
 FIRST NAME DRILLER LAST NAME

SIGNATURE Maurice Brown

B 2 WELL INFORMATION

1 2 3 (SEQ. NO.) 6
 MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 5
 8 12

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 350
 16 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ DOMESTIC HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
☐ TEST
 MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 70 FEET
 24 26

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)
 4 8

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
☒ BORED (OR AUGERED) ☐ JETTED ☐ DRIVEN
☐ 30-37 AIR-ROTARY ☐ AIR-PERCUSSION ☒ ROTARY (HYDRAULIC ROTARY)
☐ CABLE ☐ REVERSE-ROTARY ☐ DRIVE-POINT
 OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEMED AN EXISTING WELL
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)
 APPROPRIATION PERMIT NUMBER 1070
 FORCE 67-68 WHITE INITIALS 63 CONDITIONS 63
 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55

B 4 CONTINUED HEALTH DEPARTMENT APPROVAL
 1 2 3 (SEQ. NO.) 6
 DATE 091372 APPROVED John M. [Signature]
 43 44 45 46 47 48 49 50 51 52 53 54 55

B 5 SPECIAL CONDITIONS (DWR USE ONLY)
 1 2 3 (SEQ. NO.) 6
 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

B 3 LOCATION OF WELL

1 2 3 (SEQ. NO.) 6
 COUNTY Cecil

SUBDIVISION 23

SECTION 44

NEAREST TOWN PERRYVILLE, M.D.

MILES FROM TOWN (ENTER 0 IF IN TOWN) 3

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

☒ NORTH ☐ EAST ☐ N.E. NORTHEAST
☐ SOUTH ☐ WEST ☐ N.W. NORTHWEST
 NEAR WHAT ROAD WINGCH
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) ☒ N ☐ S

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. SHOW DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SHOW SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN RELATION TO THE BOX NUMBER FROM THE WELL LOCATION MAP.

WELL PERRYVILLE #40
 WINGCH RIVER

BOX NUMBER 1070
630

NORTH COORDINATE 635000
 50 51 52 53 54 55

EAST COORDINATE 1070000
 57 58 59 60 61 62 63

ELEVATION AT WELL HEAD (FEET) 65
 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

ORIGINAL

107-50

124

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL.

ISSUE DATE- 04/19/73
MD DA YR

* PERMIT NUMBER- CH-73-3366 *

ISSUED TO DRILLER-

LEONARD WELL DRLG
BOX 742 BUSH STREET
WHITE MARSH MD 21162

DRILLED
ID. NUMBER- 32

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

VERDEL CONSTRUCTION
7307 HARFORD RD
BALTIMORE MD 21234

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF BELVIDERE

THE WATER IS TO BE USED FOR A COMMERCIAL/INDUSTRIAL SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. DEPARTMENT REPRESENTATIVES SHALL HAVE ACCESS TO THE WELL TO CONDUCT SCIENTIFIC TESTS AND MEASUREMENTS DURING DRILLING.
2. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
10/19/73. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

GROUNDWATER APPROPRIATION
PERMIT NUMBER- CE73GAP015

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

DWR COPY

EMERGENCY NO. (If any) -

B 1 6322

SEQUENCE NO. (DWR USE ONLY)

1 2 3 (SEQ. NO.) 6
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-5 ON ALL CARDS)STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

0366

DATE RECEIVED
(DWR USE ONLY)

041673

OWNER

COL 15 LAST NAME

STREET
OR RFD

COL 36

POST
OFFICE

COL 57

Verdel Construction
7307 Harford Rd
Baltimore Md 21204

3-13

B 1 CONTINUED

1 2 3 (SEQ. NO.) 6

DRILLER INFORMATION

DATE 4/10/73

LICENSE
NUMBER

32

FIRST NAME

DRILLER

LAST NAME

SIGNATURE

Wm. Leonard
Wm. Leonard

B 2

1 2 3 (SEQ. NO.) 6

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

3000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☐ DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING, AGRICULTURE, IRRIGATION
- ☒ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- ☐ MUNICIPAL WATER SUPPLY
- ☐ PRIVATE WATER COMPANY
- ☐ TEST
- MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL

150

APPROXIMATE DIAMETER OF WELL

6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

- ☐ BORE (ON AUGER) ☒ JETTED ☐ DRIVEN
- ☐ AIR-ROTARY ☒ AIR-PERCUSSION ☐ ROTARY (HYDRAULIC ROTARY)
- ☐ CABLE ☐ REVERSE-ROTARY ☐ DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEN AN EXISTING WELL
- PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

APPROPRIATION: 01E730AP015

ENGINEER REVIEW

DISTRICT NO. 63

FORCE: CW

WHITE INITIALS IN BOX

CONDITIONS: A

70 71 72 73 74 75 76 77 78 79

B 4 CONTINUED

1 2 3 (SEQ. NO.) 6

HEALTH DEPARTMENT APPROVAL

DATE 04/27/73

COUNTY NAME

COUNTY NO.

APPROVED BY

(WJH)

(DWR USE ONLY)

B 3

1 2 3 (SEQ. NO.) 6

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN

MILES FROM TOWN CENTER

LOCATION OF WELL

B 4

1 2 3 (SEQ. NO.) 6

DIRECTION FROM TOWN

N

S

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NW

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SW

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NE

NW

SE

SW

ORIGINAL

2180

053073

Verde 11
7307 Harford Rd

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAYES STATE OFFICE 2000 ANNAPOLIS MD 21403
WELL COMPLETION REPORT

Sand + Gravel 0 10
Grey Clay 10 15
Gravel 15 45
Grey clay 45 63
Clay + Gravel 63 66
Grey clay 66 70
Gravel + Sand 70 85
Grey Clay + Sand 85 95
Sand 95 110 ✓

DEPTH OF WELL 110

CIRCLE APPROPRIATE BOXES
A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL
I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.
DRILLERS NAME
W. Frank
Wm. Leonard
SIGNATURE

GROUTING RECORD

DEPTH OF GROUT SEAL 70

CASING RECORD

OTHER CASING

SCREEN RECORD

DEPTH FROM 103 TO 110

GRAVEL PACK 100 110

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX

TELESCOPE CASING

LOG INDICATOR

CE-73-0366

LOCATION OF WELL ON

CASING HEIGHT

78

90

95

2

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

PERMIT TO DRILL WELL

ISSUE DATE- 08/18/73
MD DA YR

* PERMIT NUMBER- CE-73-0556 *

ISSUED TO DRILLER-

DIFILIPPO, C JR
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

DRILLER
IC. ALPHE- 240

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

MARKUS, WALTER
RD 3 BX 302
NORTH EAST MD 21901

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF NORTH EAST

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

****SPECIAL CONDITIONS****

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS-

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THIS PERMIT IS VALID UNTIL
02/18/74. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

PAUL W. MCKEE
DIRECTOR, MARYLAND
DEPARTMENT OF WATER
RESOURCES

B 1 5121

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED
(OWNER USE ONLY)

OWNER

Markens

05 1 7 7 8

STREET

R. D. 3 Box 302

POST OFFICE

North East, Md. 21700

73 0556

B 1 CONTINUED

DRILLER INFORMATION

1 2 3 (SEQ. NO.) 6

DATE *August 15, 1973*

LICENSE NUMBER *250*

Constantine DiFi Lippo

SIGNATURE *Constantine DiFi Lippo*

B 2

WELL INFORMATION

1 2 3 (SEQ. NO.) 6

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) *800*

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING, AGRICULTURE, IRRIGATION
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
- ☐ MUNICIPAL WATER SUPPLY
- ☐ PRIVATE WATER COMPANY
- ☐ TEST

APPROXIMATE DEPTH OF WELL *150*

APPROXIMATE DIAMETER OF WELL *6* (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

- ☒ BORED (OR AUGURED)
- ☒ JETTED
- ☐ DRIVEN
- ☐ AIR-ROTARY
- ☒ AIR-PERCUSSIVE
- ☐ ROTARY (HYDRAULIC ROTARY)
- ☐ CABLE
- ☐ REVERSE-ROTARY
- ☐ DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEMED AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (OWNER USE ONLY)

APPROPRIATION PERMIT NUMBER	ENGINEER REVIEW DISTRICT NO.
54	63
FORCE	CONDITIONS
67 68	70 71 72 73 74 75 76 77 78 79

B 4 CONTINUED

HEALTH DEPARTMENT APPROVAL

DATE *081573*
APPROVED BY *Cecil*
COUNTY NAME *Washington*

SPECIAL CONDITIONS B-63

B 5

SECTION

SUBDIVISION

SECTION

NEAREST TOWN

MILES FROM TOWN

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD

DISTANCE IN FEET

SECTION DISTANCE AND

APPROXIMATE BOX

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL

ROADS AND STREAMS WITH NORTH IN THE CORNER

TAKEN FROM WELL TO NEAREST ROAD OR STREAM

SKETCH ALSO SHOW, BY MEANS OF AN ARROW, THE DIRECTION

AND THE BOX NUMBER FROM THE WELL LOCATION

U.S. 70

Private Lane

Public System

Box Number

1080

640

North Coordinate

50 51 52 53 54 55

East Coordinate

57 58 59 60 61 62 63

Elevation at Well Head (Feet)

65 66 67 68

ENTERED 109 44

ORIGINAL

8817

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TANNEY STATE OFFICE
WELL COMPLETION REPORT

73-0556

1/10/73

101073

Marine

R.S. 3. 150' 100'

Topsoil

0 3

Subsoil

3 50

gray granite

50 150



9

DEPTH OF GROUT SEAL

50

CASING RECORD

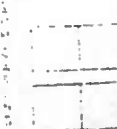


57

6

60

OTHER CASING



C 2

DEPTH

40

60

150

CIRCLE APPROPRIATE BOXES

☐ A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

☐ E ELECTRIC LOG OBTAINED

☐ P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME

CONSTANTINE O. Filippa

SIGNATURE Constantine O. Filippa

DIAMETER OF SCREEN

GRAVEL PACK

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX

OWNER USE ONLY (NOT TO BE FILLED IN BY DRILLER)

TELESCOPE CASING

LOG INDICATOR

AVAILABILITY

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 11/13/73
MO DA YR

PERMIT NUMBER- CE-77-0659

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 172

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

SPADAFORA, JAMES W
538 BUTTONWOOD ST
READING PA 19601

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
05/13/74. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (If any)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

7-1-73

B 1 6837

1 2 3 (SEQ. NO.) 8
(THIS NUMBER IS TO BE PUNCHED
ON COLS. 3-6 ON ALL CARDS)DATE RECEIVED
(DWR USE ONLY)

111273

OWNER

COL 13 LAST NAME

STREET
OR RFD

COL 36

POST
OFFICE

COL 37

DRILLER INFORMATION

B 13

B 1

CONTINUED

1 2 3 (SEQ. NO.) 4

DATE

10-5-73

LICENSE
NUMBER

159

FIRST NAME

DRILLER

LAST NAME

SIGNATURE

Vernon W. Kirk

B 2

WELL INFORMATION

1 2 3 (SEQ. NO.) 4

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

5

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ D

DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ F

FARMING, AGRICULTURE, IRRIGATION

☐ I

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

☐ M

MUNICIPAL WATER SUPPLY

☐ P

PRIVATE WATER COMPANY

☐ T

TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL

100

FEET

APPROXIMATE DIAMETER OF WELL

6

(NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED)

JETTED

DRIVEN

30-37 AIR-ROTARY

AIR-PERCUSSION

ROTARY (HYDRAULIC ROTARY)

☒ CABLE

REVERSE ROTARY

DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

☒ N

THIS WELL WILL NOT REPLACE AN EXISTING WELL

☐ Y

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

☐ S

THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

☐ DTHIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

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6449
SEQUENCE NO. 10WPS-34 ONLY
THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3-6 ON ALL CARDS

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD 21401
WELL COMPLETION REPORT

DATE RECEIVED
020574

DATE WELL COMPLETED
010874

DEPTH OF WELL

730659

OWNER
LAST NAME
STREET OR RFD
WELL DESCRIPTION

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING
DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)
FEET
FROM TO
CHECK IF WATER BEARING

not visible
white clay sand 30 80
red clay 80 100
white sand 100 12

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
TYPE OF GROUTING MATERIAL (CIRCLE)
CEMENT C M BENTONITE CLAY B C
NO. OF BAGS 2 NO. OF POUNDS 20
GALLONS OF WATER 20
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 2 FT. TO 15 FT.
(ENTER 0 IF FROM SURFACE)

CASING RECORD
Casing Types (INSERT APPROPRIATE CODE BELOW)
S 1 WELL CONCRETE
P L PLASTIC
NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH) 6
TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 107

OTHER CASING (IF USED)
DIAMETER (INCH) DEPTH (FEET) FROM TO

SCREEN RECORD
SCREEN TYPE OR OPEN HOLE
(INSERT APPROPRIATE CODE BELOW)
S T STEEL
B R BRASS
H O OPEN HOLE
P L PLASTIC
O T OTHER

DEPTH (NEAREST WHOLE FOOT)
FROM 107 TO 112

DIAMETER OF SCREEN 6 (NEAREST INCH)
FROM 55 TO 60

GRAVEL PACK
IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX
OWNER USE ONLY (NOT TO BE FILLED IN BY DRILLER)
W G
74 75 76 OTHER DATA AVAILABLE

CIRCLE APPROPRIATE BOXES
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL
I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE CAPTIONED PERMIT FOR DRILL WELL AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLER'S NAME
PLEASE Vernon W. Kirk
SIGNATURE
Vernon W. Kirk

PUMPING RECORD
PUMP TYPE
PUMPING RATE
WATER LEVEL
TYPE OF PUMPED USED (FOR PUMPING TEST)
A AIR
C CENTRIFUGAL
J JET
D DIRECT
H HORIZONTAL
S SURFACE

PUMP INSTALLED
TYPE OF PUMP (CIRCLE APPROPRIATE BOX)
CAPACITY
GALLONS PER MINUTE (TO NEAREST GALLON)
PUMP HORSE POWER
PUMP COLUMN LENGTH (NEAREST FEET)

CASING HEIGHT
(+ ABOVE
- BELOW
LAND SURFACE
LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE FOR SEPTIC TANKS, AND/OR OTHER LAND USES. INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.

Orig
DRILLER

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 11/19/73
MO DA YR

PERMIT NUMBER- CL-7A-0664

ISSUED TO DRILLER-

PRESTON & HAMILTON
RD 1 BOX 230
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 112

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

ROARK, PATTON H
RD 1
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
05/01/74. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAXES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403
APPLICATION FOR PERMIT TO DRILL WELL

1-1651
1-2-3 (SEC. NO.) 6
THIS NUMBER IS TO BE PUNCHED IN COLUMNS 2-6 OF THE CARD

DATE RECEIVED (WRA USE ONLY)
111973

OWNER
COL 18 LAST NAME Hoark
STREET OR RFD Rd 1
COL 36
POST OFFICE Paragard, Md.
COL 57

DRILLER INFORMATION
B 1 CONTINUED
1-2-3 (SEC. NO.) 0
DATE 11-5-73 LICENSE NUMBER 112
77 86
FIRST NAME CHAS. HAMICTON LAST NAME
SIGNATURE Charles H. Hamicton Jr.

WELL INFORMATION
B 2
1-2-3 (SEC. NO.) 0
MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 10
8 12
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 1000
1 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
22 ☐ MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL
☐ PRIVATE WATER COMPANY
☐ TEST

APPROXIMATE DEPTH OF WELL 100 FEET
24 36
APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)
METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
BORED (OR AUGERED) JETTED DRIVEN
30-37 AIR-ROTARY AIR-PERCUSSION ☒ ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT
OTHER (DESCRIBE)

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)
☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
39 ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEIN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED, (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)
APPROPRIATION PERMIT NUMBER
ENGINEER REVIEW DISTRICT NO.
A E N S G W O C L U
FORCE INITIALS CONDITIONS
70-71 72 73 74 75 76 77 78 79

HEALTH DEPARTMENT APPROVAL
B 4 CONTINUED
1-2-3 (SEC. NO.) 0
STATE HEALTH DEPT. APPROVAL
COUNTY NAME CECIL COUNTY NO.
DATE 11-16-73 APPROVED BY John M. Jones Jr.
ASST. DIR. OF HEALTH

WRA USE ONLY
B 5
1-2-3 (SEC. NO.) 0

LOCATION OF WELL
B 3
1-2-3 (SEC. NO.) 0
COUNTY Cecil
SUBDIVISION 33
SECTION 44
NEAREST TOWN Charleston
MILES FROM TOWN (ENTER 0 IF IN TOWN) 72

DIRECTION FROM TOWN
1-2-3 (SEC. NO.) 0
N NORTH E EAST NE NEORTHEAST S
S SOUTH W WEST SW SOUTHWEST
NEAR WHAT ROAD Woodall Rd
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) N S
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 34

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

Sketch showing location of well in relation to roads and streams. The sketch includes a north arrow pointing upwards. A road labeled "Carpenter Point Rd." runs diagonally from the top right towards the bottom left. Another road labeled "Woodall Rd." runs horizontally across the middle. A well location is marked with an "X" at the intersection of these roads. The well is located in the box numbered "1080" and "630". The sketch also shows a stream labeled "Woodall Rd." running horizontally across the middle. The well is located in the box numbered "1080" and "630".

BOX NUMBER
NORTH COORDINATE 630000
50 61 32 53 54 35
EAST COORDINATE 1080000
57 58 59 60 61 62 63
ELEVATION AT WELL HEAD (FEET) 100
55 56 57 58 59 60

ORIGINAL
ENTERED 110 05

SEQUENCE NO. 4997
 THIS NUMBER IS TO BE WRITTEN IN COLS. 8-9 ON ALL CARDS
 DATE RECEIVED 5-19-74
 DATE WELL COMPLETED 051974
 OWNER Mark
 STREET OR ROAD

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MD 21401
 WELL COMPLETION REPORT

DEPTH OF WELL 40

WELL LOG
 STATE THE KIND OF FORMATIONS REVEALED, THEIR COLUMN, DEPTH, THICKNESS AND IF WATER BEARING
 DESCRIPTION FEET CHECK IF WATER BEARING
 USE ADDITIONAL SHEETS IF NECESSARY

Sand & gravel 0 30
 red clay 30 70
 white clay 70 90
 sand & gravel mixed

GROUTING RECORD
 WELL NO. 000000
 CEMENT 45 45
 NO. OF BAGS 4
 GALLONS OF WATER 20
 DEPTH OF GROUT SEAL TO NEAREST FOOT
 FROM 0 TO 20

CASING RECORD
 INSERT APPROPRIATE CODE BELOW
 MAIN CASING TYPE ST
 NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH) 4
 TOTAL DEPTH OF MAIN CASING (NEAREST FEET) 35

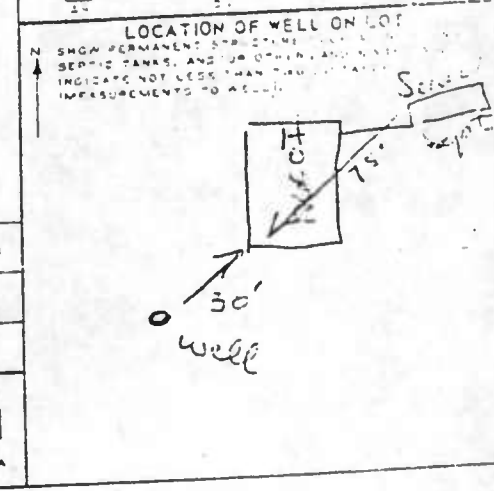
OTHER CASING IF USED
 DIAMETER (INCH) DEPTH (FEET)
 FROM TO

SCREEN RECORD
 SCREEN TYPE OR OPEN HOLE
 INSERT APPROPRIATE CODE BELOW
 STEEL BR OPEN HOLE
 PLASTIC OT OTHER

DEPTH (NEAREST WHOLE FOOT)
 FROM TO
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

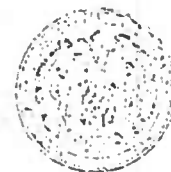
DIAMETER OF SCREEN 4 INCHES
 GRAVEL PACK
 IF WELL DRILLED WAS A TYPING WELL CIRCLE BOX
 DRILLER'S NAME
 SIGNATURE

WATER LEVEL
 TYPE OF PUMP USED
 PUMP INSTALLED
 Casing Height



CIRCLE APPROPRIATE BOXES
 A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
 ELECTRIC LOG OBTAINED
 TEST WELL CONVERTED TO PRODUCTION WELL
 I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE CAPTIONED "PERMIT TO DRILL WELL" AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.
 DRILLER'S NAME
 SIGNATURE

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 02/11/74
MD DA YR

PERMIT NUMBER- CE-73-07-1

ISSUED TO DRILLER-

BROWN, M E & SONS
RFD 2
NOTTINGHAM PA 19362

DRILLER
ID. NUMBER- 38

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

PORTER, GEORGE
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF JACKSON

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. NOTIFY COUNTY HEALTH DEPT. 24 HOURS BEFORE GRADING WELL.
2. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
08/11/74. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT V. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

STATE OF MARYLAND WATER RESOURCES ADMINISTRATION TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403 APPLICATION FOR PERMIT TO DRILL WELL											
B 1		2054		SEQUENCE NO. (WRA USE ONLY)							
1 2 3 (SEQ. NO.)		6		DATE RECEIVED (WRA USE ONLY)							
OWNER		Porter		George							
STREET OR RFD		Perryville, Md									
POST OFFICE		Perryville, Md									
B 1		CONTINUED		DRILLER INFORMATION		B 3					
1 2 3 (SEQ. NO.)		6		DATE		Feb 5, 1974		LICENSE NUMBER		38	
MAURICE E. BROWN & Sons		DRILLER		LAST NAME							
SIGNATURE		Larry A. Brown									
B 2		WELL INFORMATION									
1 2 3 (SEQ. NO.)		6		MAXIMUM PUMPING RATE (GALLONS PER MINUTE)		5		12			
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)		400									
USE FOR WATER (CIRCLE APPROPRIATE BOX)											
<input checked="" type="checkbox"/> HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)											
<input type="checkbox"/> FARMING, AGRICULTURE, IRRIGATION											
<input type="checkbox"/> INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT											
<input type="checkbox"/> MUNICIPAL WATER SUPPLY											
<input type="checkbox"/> PRIVATE WATER COMPANY											
<input type="checkbox"/> TEST											
APPROXIMATE DEPTH OF WELL		125'		24		28		FEET			
APPROXIMATE DIAMETER OF WELL		6"		(NEAREST INCH)							
METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)											
<input checked="" type="checkbox"/> BORED (AIR AUGERED)		<input type="checkbox"/> JETTED		<input type="checkbox"/> DRIVEN							
<input checked="" type="checkbox"/> AIR-ROTARY		<input type="checkbox"/> AIR-PERCUSSION		<input type="checkbox"/> ROTARY (HYDRAULIC ROTARY)							
<input type="checkbox"/> CABLE		<input type="checkbox"/> REVERSE-ROTARY		<input type="checkbox"/> DRIVE-POINT							
OTHER (DESCRIBE)											
REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)											
<input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL											
<input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED											
<input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY											
<input type="checkbox"/> THIS WELL WILL DEEPEN AN EXISTING WELL											
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)											
NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)											
APPROPRIATION PERMIT NUMBER											
FORCE											
WRITE INITIALS											
CONDITIONS											
B 4		CONTINUED		HEALTH DEPARTMENT APPROVAL							
1 2 3 (SEQ. NO.)		6		DATE		040874					
STATE HEALTH		COUNTY NAME		COUNTY NO.							
SIGNATURE		William A. Linn									
APPROVED BY											
SPECIAL CONDITIONS (WRA USE ONLY)											
B 3		COUNTY		Cecil							
SUBDIVISION		23									
SECTION		44									
NEAREST TOWN		Jackson									
MILES FROM TOWN (CENTER OF TOWN)		1 1/2									
B 4		DIRECTION FROM TOWN									
1 2 3 (SEQ. NO.)		6									
<input type="checkbox"/> NORTH		<input type="checkbox"/> EAST									
<input type="checkbox"/> SOUTH		<input type="checkbox"/> WEST									
NEAR WHAT ROAD		Jackson Station Rd									
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)		<input type="checkbox"/> NORTH		<input type="checkbox"/> SOUTH							
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)		40									
DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. SHOW DISTANCE FROM WELL TO NEAREST ROAD (UNCTION OR STREAM) (CIRCLE APPROPRIATE BOX). SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE SKETCH AND THE BOX NUMBER FROM THE WELL LOCATION MAP.											
Sketch showing location of well in relation to nearest roads and streams with north in the direction of the arrow. Show distance from well to nearest road (unction or stream) (circle appropriate box). Sketch also show, by means of an "X", the well location in the sketch and the box number from the well location map.											
Sketch showing location of well in relation to nearest roads and streams with north in the direction of the arrow. Show distance from well to nearest road (unction or stream) (circle appropriate box). Sketch also show, by means of an "X", the well location in the sketch and the box number from the well location map.											
Sketch showing location of well in relation to nearest roads and streams with north in the direction of the arrow. Show distance from well to nearest road (unction or stream) (circle appropriate box). Sketch also show, by means of an "X", the well location in the sketch and the box number from the well location map.											
Sketch showing location of well in relation to nearest roads and streams with north in the direction of the arrow. Show distance from well to nearest road (unction or stream) (circle appropriate box). Sketch also show, by means of an "X", the well location in the sketch and the box number from the well location map.											
Sketch showing location of well in relation to nearest roads and streams with north in the direction of the arrow. Show distance from well to nearest road (unction or stream) (circle appropriate box). Sketch also show, by means of an "X", the well location in the sketch and the box number from the well location map.											
Sketch showing location of well in relation to nearest roads and streams with north in the direction of the arrow. Show distance from											

C1 1632

SEQUENCE NO.
(WRA USE ONLY)THIS NUMBER IS TO BE RECORDED
IN COL. 3-5 ON ALL PAPERSDATE RECEIVED
(WRA USE ONLY)

040973

MARCH 13 1974

DATE WELL COMPLETED

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21403
WELL COMPLETION REPORT

DEPTH OF WELL

260'

OWNER Porter GeorgeSTREET OR RFD Perryville, Md.

WELL LOG	FEET	CHECK IF APPLICABLE
DESCRIPTION OF (USE ADDITIONAL SHEETS IF NECESSARY)	FROM	TO

Clay	0	8	
Gravel	8	40	✓
Sand	40	45	✓
Gravel	45	51	✓
Clay	51	62	
Serpentine	62	91	✓
Granite	91	260	✓

GROUTING RECORD

WELL HAS BEEN GROUTED
TO NEAREST APPROPRIATE SEALTYPE OF GROUTING MATERIAL (CIRCLE)
CEMENT ☒ MORTAR ☐ OTHER ☐NO. OF BAGS 5 NO. OF POUNDS 20DEPTH OF GROUT SEAL TO NEAREST FOOT
FROM 0 TO 25

ENTER 0 IF FROM SURFACE

CASING RECORD

CASING TYPE (CIRCLE)
STEEL ☒ CONCRETE ☐
PLASTIC ☐ OTHER ☐MAIN CASING TYPE ST NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH) 6" TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 65'OTHER CASING (IF USED)
DIAMETER (INCH) _____ DEPTH (FEET) FROM _____ TO _____

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (CIRCLE)
STEEL ☐ BRASS ☐ HO ☒
PLASTIC ☐ OTHER ☐C 2 (SEQ. NO.) 8
DEPTH (NEAREST WHOLE FOOT) FROM 65' TO 260'
EACH SCREEN
1 HO 2 65' 3 260'
4 260' 5 260' 6 260'
7 260' 8 260' 9 260'
10 260' 11 260' 12 260'
13 260' 14 260' 15 260'
16 260' 17 260' 18 260'
19 260' 20 260' 21 260'
22 260' 23 260' 24 260'
25 260' 26 260' 27 260'
28 260' 29 260' 30 260'
31 260' 32 260' 33 260'
34 260' 35 260' 36 260'
37 260' 38 260' 39 260'
40 260' 41 260' 42 260'
43 260' 44 260' 45 260'
46 260' 47 260' 48 260'
49 260' 50 260' 51 260'
52 260' 53 260' 54 260'
55 260' 56 260' 57 260'
58 260' 59 260' 60 260'
61 260' 62 260' 63 260'
64 260' 65 260' 66 260'
67 260' 68 260' 69 260'
70 260' 71 260' 72 260'
73 260' 74 260' 75 260'
76 260' 77 260' 78 260'
79 260' 80 260' 81 260'
82 260' 83 260' 84 260'
85 260' 86 260' 87 260'
88 260' 89 260' 90 260'
91 260' 92 260' 93 260'
94 260' 95 260' 96 260'
97 260' 98 260' 99 260'
100 260'

CIRCLE APPROPRIATE BOXES

- ☐ A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- ☐ B ELECTRIC LOG OBTAINED
- ☐ C TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL
CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT
TO DRILL WELL" AND THAT INFORMATION CONTAINED
IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE
TO THE BEST OF MY KNOWLEDGE, INFORMATION AND
BELIEF.

DRILLER'S NAME

PLEASE PRINT MAURICE E. BROWN, Sr.SIGNATURE Larry A. Brown

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

(E.R.O.S.)

70 ☐ 71 ☐ 72 ☐TELESCOPE CASING ☐ LOG ☐ INDICATOR ☐

W 0

74 75 76

OTHER DATA AVAILABLE

WATER LEVEL 30'

RETAINING WALL 30'

WATER LEVEL 130'

TYPE OF PUMP USED (CIRCLE)
A ☒ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z ☐

PUMP INSTALLED

TYPE OF PUMP (CIRCLE)
A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z ☐

DRILLER WILL INSTALL PUMP
CIRCLE SHOW PUMP LOCATION

CAPACITY
GALLONS PER MINUTE
TO NEAREST GALLON

PUMP HORSE POWER 37

PUMP COLUMN LENGTH
(NEAREST FOOT) 43

CASING HEIGHT (CIRCLE)
+ ABOVE 10' LAND SURFACE
- BELOW 20'

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING
SEPTIC TANKS, AND/OR OTHER LAND MARKS
INDICATE NOT LESS THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

10' ←

Well

↑ 20'

HOUSE

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 04/25/74
MO DA YR

PERMIT NUMBER- CE-75-0322

ISSUED TO-DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER-

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

DAVIS, CLAUDE R
GREENSPRING RD
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
SUBDIVISION, SECTION- G , LOT- 10 ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. NOTIFY COUNTY HEALTH DEPT. 24 HOURS BEFORE GROUTING WELL.
2. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
09/30/74 WELL COMPLETION

THE DEPARTMENT WILL IN 30 DAYS
VERIFY COMPLETION OF WELL

HERBERT M. TSACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-0822

5845		STATE OF MARYLAND DEPARTMENT OF WATER RESOURCES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403 APPLICATION FOR PERMIT TO DRILL WELL	
DATE RECEIVED (BY POST ONLY)		OWNER <u>Davis Claude R</u>	
STREET OR RFD <u>Greenspring Rd, Hailwood, Md</u>		COUNTY <u>Cecil</u>	
POST OFFICE <u>Charles Town, Md</u>		SUBDIVISION <u>6</u>	
SECTION <u>44</u>		NEAREST TOWN <u>Charles Town</u>	
MILES FROM TOWN (ENTER 0 IF IN TOWN)		DIRECTION FROM TOWN (CIRCLE APPROPRIATE)	
1. 2. 3. (SEE NO.)		N. NORTH E. EAST S. SOUTH W. WEST	
4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771.			

25 ft
House
70 ft
X well

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE 05/01/74
MD 04 YR

0827
PERMIT NUMBER- CE-73-0517

ISSUED TO DRILLER-

KIRK, VERNON N.
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 164

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY

JONES, EDWAL
1517 CHICHESTER AVE
TINROD PA

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
SUBDIVISION, SECTION- , LOT- 9 ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

VIOLATION OF ANY OF THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. NOTIFY COUNTY HEALTH DEPT. 24 HOURS BEFORE GROUTING WELL.
2. LOCATE WELL AT LEAST 10 FEET FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS APPLY TO ALL APPLICATIONS.

THIS PERMIT IS VALID FOR THE
DRILLING OF ONE WELL ONLY.
RENEWAL MUST BE SUBMITTED
BEFORE THE EXPIRATION DATE.

HENRY A. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

730827

EMERGENCY NO. 1-800-452-7344

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE SILVER SPRING, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

B-1 6851

APPLICANT'S NAME

1-2-3 (SEE INSTRUCTIONS)
WELL NUMBER (17 TO 20) AND
WELL DEPTH (FEET) ON ALL CARDS

DATE RECEIVED

OWNER

COL 18 LAST NAME

APPLICANT'S NAME

APPLICANT'S NAME

COL 18

DRILLER INFORMATION

B-1 6851

DATE RECEIVED

DATE RECEIVED

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STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAYES STATE OFFICE BLDG., ANNAPOLIS, MD. 21403
WELL COMPLETION REPORT

DATE RECEIVED: 6-6-74
DATE WELL COMPLETED: 6-6-74
DEPTH OF WELL: 105
ITS NEAREST FOOT: 22

OWNER: JONES, J DWAL
STREET OR RFD: 1337 Crichester Ave
POST OFFICE: L. Howard

WELL LOG

DESCRIPTION	FROM	TO	CHANGES
brown sand	0	30	
gravel	30	70	
red clay	70	105	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
BENTONITE CLAY
NO. OF BAGS: 5
NO. OF POUNDS: 470
SEALS OF WATER: 30
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM: 2 TO: 25
ENTER CITY FROM SURFACE

CASING RECORD

MAIN NOMINAL DIAMETER: 5
TOTAL DEPTH: 100
ENTER CITY FROM SURFACE

SCREEN RECORD

SCREEN TYPE: 1
SCREEN SIZE: 1/2
SCREEN LOCATION: 100
SCREEN DEPTH: 105

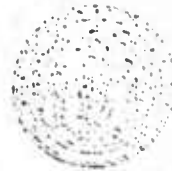
LOCATION OF WELL ON LOT

SEPTIC TANK
↑ 10ft
HOUSE
↑ 10ft
WELL

ENTERED 1 11 1975

DNR 157

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 03/17/75
MO-DA-YR

PERMIT NUMBER- CE-73-1141

ISSUED TO DRILLER-

KIRK, VERNON W
RED 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 101

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY- SLAYMAN, JAMES

CHARSTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARSTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
09/17/75. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY USE ONLY

STATE OF MARYLAND

WATER RESOURCES ADMINISTRATION

TABLE STATE OFFICE SLUG, AND COUNTY MAPS
APPLICATION FOR PERMIT TO DRILL WELL

0036
1. 2. 3. (REG. NO.)
(THIS NUMBER IS TO BE PRINTED
IN COLS. 2-4 ON AL. CARD)

DATE RECEIVED
(OFFICE ONLY)
02-15-75
OWNER
COL. 18 - LAST NAME
STREET
OR R.F.D.
COL. 86
POST
OFFICE
COL. 87

Slayman, James

Charstown, Md

4. 5. CONTINUED
PAGE 1 OF 1
DATE 3-12-75

DRILLER INFORMATION

LICENSE
NUMBER 159
FIRST NAME
LAST NAME
SIGNATURE
Vernon W. Kirk
Vernon W. Kirk

6. 3. 1. 2. 3. (REG. NO.)
COUNTY

SUBDIVISION
SECTION
NEAREST TOWN
MILES FROM TOWN (ENTER 0 IF IN TOWN)

WELL INFORMATION
1. 2. 3. (REG. NO.)
MAXIMUM PUMPING RATE (GALLONS PER MINUTE)
300

DIRECTION
(CIRCLE APPROPRIATE BOX)
N NORTH
S SOUTH
E EAST
W WEST
NE NORTHEAST
SE SOUTHEAST
SW SOUTHWEST
NW NORTHWEST
ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)
N NORTH
S SOUTH
DISTANCE FROM ROAD
(ENTER DISTANCE AND CIRCLE
(CIRCLE APPROPRIATE BOX))

USE FOR WATER (CIRCLE APPROPRIATE BOX)
1. DOMESTIC (FOR DRINKING AND DOMESTIC USE ONLY)
2. IRRIGATION
3. INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
4. DOMESTIC WATER SUPPLY
5. PRIVATE WATER SUPPLY
6. OTHER (MUST HAVE STATE HEALTH DEPT. APPROVAL)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION
TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE SKETCH
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM (CIRCLE THE
DISTANCE) SHOW ST. MEASUREMENT OF AN "X" IN THE WELL LOCATION MAP
AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

APPROXIMATE DEPTH OF WELL
APPROXIMATE DIAMETER OF WELL

Carpenes Pt. Rd
3 mi N Charstown
X well

TYPE OF DRILLING USED (CIRCLE APPROPRIATE BOX)
1. HAND DRILL
2. AUGER
3. ROTARY
4. OTHER (MUST HAVE STATE HEALTH DEPT. APPROVAL)

1080
630
630000
1080000

RECAPITULATION OF OPENED WELLS (CIRCLE APPROPRIATE BOX)
1. YES
2. NO
3. OTHER (MUST HAVE STATE HEALTH DEPT. APPROVAL)

COORDINATE
EASTING
NORTHING
EASTING
NORTHING

FORM 514-971

5811

OF COURSE NO. (MEASURE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAKES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED
8-20-75DATE WELL COMPLETED
5-7-75DEPTH OF WELL
90

ITS NEAREST FOOT: 24

000775

OWNER Slayman James
STREET OR RFD CharstownPOST OFFICE CharstownWELL DESCRIPTION
STATE THE KIND OF FORMATION PERFORATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING.

DESCRIPTION OF FORMATION	FROM	TO	THICKNESS
gravel & sand	0	20	
red clay	20	50	
yellow clay & sand	50	80	
white sand	80	90	

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
TYPE OF GROUTING MATERIAL (CIRCLE NO. 1)
CEMENT ☒ BENTONITE CLAY ☐
NO. OF BAGS 4 NO. OF POUNDS 376
GALLONS OF WATER 24
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 2 TO 20 FEET
(NEAREST 0.5 FEET FROM SURFACE)

CASING RECORD
TYPE OF CASING (CIRCLE)
STEEL ☒ CONCRETE ☐
PLASTIC ☐ OTHER ☐
MAIN CASING DIAMETER (INCHES) 6 TOTAL DEPTH (FEET) 85
CASING DIAMETER (INCHES) 6 CASING DEPTH (FEET) 85

OTHER CASING IF USED
DIAMETER (INCHES) 6 DEPTH (FEET) 85
TYPE (CIRCLE)
STEEL ☒ CONCRETE ☐
PLASTIC ☐ OTHER ☐

SCREEN RECORD
TYPE OF SCREEN (CIRCLE)
STEEL ☒ CONCRETE ☐
PLASTIC ☐ OTHER ☐
SCREEN DIAMETER (INCHES) 6 SCREEN DEPTH (FEET) 90

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE DISTANCE FROM TWO DISTANCE (MEASUREMENTS TO WELL).
House ☒
Well ☒
Septic Tank ☒

HOURS PUMPED ITS NEAREST HOUR
PUMPING RATE
GALLONS PER MINUTE (TO NEAREST GALLON)
METHOD USED TO MEASURE PUMPING RATE
WATER LEVEL (MEASURED FROM)
BEFORE PUMPING 40
WHEN PUMPING 60
TYPE OF PUMP USED (CIRCLE)
(FOR PUMPING TEST)
A AIR ☐ B WATER ☐
C CENTRIFUGAL ☐ D ROVER ☐
J JET ☐ S SUBMERSIBLE ☐

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE BOX - SEE ABOVE: A, C, J, S, B, D)
ORILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
CAPACITY
GALLONS PER MINUTE (TO NEAREST GALLON) 31
PUMP HORSEPOWER 37
PUMP COLUMN LENGTH (NEAREST FOOT) 43
CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
A ABOVE ☒ B BELOW ☐
LAND SURFACE 1 FEET

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE DISTANCE FROM TWO DISTANCE (MEASUREMENTS TO WELL).
House ☒
Well ☒
Septic Tank ☒

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 04/21/75
NO DA-YR

PERMIT NUMBER- CE-73-1158

ISSUED TO DRILLER-

SHORE WELL DRILRS INC
CECILTON MD 21913

DRILLER
ID. NUMBER- 128

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY

WOLL, CLAY W
2 WEST PINE ST
FLEETWOOD PA 19522

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREEN BANK SUBDIVISION, SECTION- , LOT-
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

ANY VIOLATION OF THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS ARE CODES OF APPLICATION

THIS PERMIT IS VALID UNTIL
10/1/75 IF NOT APPLIED FOR
RENEWAL
THE DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION

HERBERT H. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

1 **3849**

THIS NUMBER IS TO BE NUMBERED IN COLS. 3-8 ON ALL CARDS

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TOWER STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (DATE ONLY)

OWNER (SEE IN LAST NAME)

STREET OR RD.

POST OFFICE

M.H. Clark, Jr.

2 West Pine Street

Electwood, Pa. 19504

5-12 **CONTINUED**

DATE

11/1/58

Donald S. Newman

Donald S. Newman

DRILLER INFORMATION

LICENSE NUMBER

130

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

APPROXIMATE DAILY QUANTITY REQUIRED (GALLONS PER DAY)

USE FOR WATER (CHECK APPROPRIATE BOX)

☒ DOMESTIC OR OTHER FOR STOCKING OF WATER

☐ FARMSTEAD USE (FOR CATTLE, HORSES, ETC.)

☐ INDUSTRIAL (FURNACE COOLING WATER AND OTHER USES)

☐ MINERAL WATER SUPPLY

☐ MINERAL WATER SUPPLY

WELL INFORMATION

APPROXIMATE DEPTH OF WELL

APPROXIMATE DIAMETER OF WELL

METHOD OF DRILLING USED

☒ HAND DRILL

☐ POWER DRILL

☐ OTHER

5-13

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN

MILES FROM TOWN CENTER (IF IN TOWN)

Calvert

Greenland

25

40

Chesapeake

1

5-14

DIRECTION OF FLOW (CHECK APPROPRIATE BOX)

☒ NORTH

☐ EAST

☐ SOUTH

☐ WEST

☐ NORTHWEST

☐ SOUTHWEST

NEAR WHAT ROAD

FOR WHICH SIDE OF ROAD (CHECK APPROPRIATE BOX)

☒ NORTH

☐ SOUTH

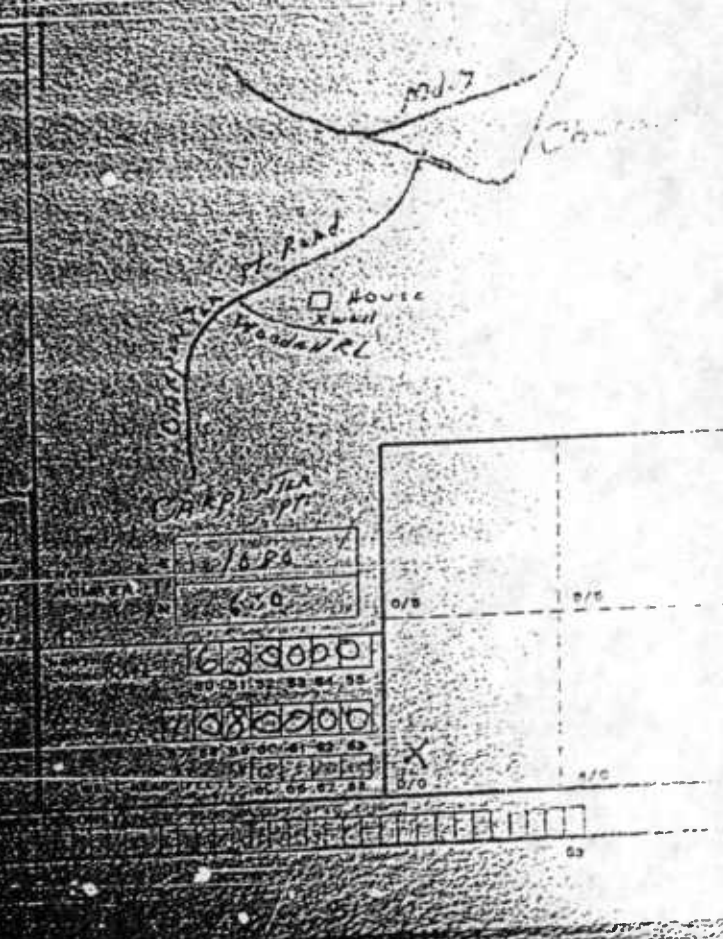
DISTANCE FROM ROAD (CENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

30

Wood Hill Road

30

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ANY ROADS AND STREAMS, WITH NORTH IN THE DIRECTION OF FLOW. TAKE YOUR WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOWS BY MEANS OF AN "X" THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



5-15

APPROXIMATE DEPTH OF WELL

APPROXIMATE DIAMETER OF WELL

METHOD OF DRILLING USED

☒ HAND DRILL

☐ POWER DRILL

☐ OTHER

DATE RECEIVED (DATE ONLY)

OWNER (SEE IN LAST NAME)

STREET OR RD.

POST OFFICE

5-16

DATE RECEIVED (DATE ONLY)

OWNER (SEE IN LAST NAME)

STREET OR RD.

POST OFFICE

ONR 214 071

73-1158

WATER RESOURCES ADMINISTRATION
TAMM STATE OFFICE BLDG., ANNAPOLIS, MD. 21403
WELL COMPLETION REPORT

DATE RECEIVED (WMA USE ONLY) **050575**
DATE WELL COMPLETED **042975**
DEPTH OF WELL **105**
22 TO NEAREST FOOT

OWNER **SPR. 214-071**
STREET OR RFD **2** POST OFFICE **21403**

WELL LOG
STATE THE KIND OF FORMATION PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING.

DESCRIPTION	FEET	THICKNESS	WATER BEARING
0-2' sand			
2-4' yellow clay			
4-5' grey clay			
5-7' white-yellow clay			
7-10' coarse white-grey sand			

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT **C M** BENTONITE CLAY **B C**
NO. OF BAGS NO. OF POUNDS
GALLONS OF WATER **NO ANNULAR SPACE**
DEPTH OF GROUT SEAL TO NEAREST FOOT

CASING RECORD
CIRCLING TYPES (CIRCLE APPROPRIATE BOX)
STEEL **C S** CONCRETE **C C**
PLASTIC **P L** OTHER **O T**
NOMINAL DIAMETER TOTAL DEPTH
CIRCLING TYPE MATERIALS OF MANUFACTURE
TYPE OF JOINT (CIRCLE APPROPRIATE BOX)
WELDED **W** RIVETED **R** OTHER **O**

SCREEN RECORD
CIRCLING TYPES (CIRCLE APPROPRIATE BOX)
STEEL **C S** WELDED **W** RIVETED **R**
PLASTIC **P L** OTHER **O T**
NOMINAL DIAMETER TOTAL DEPTH
CIRCLING TYPE MATERIALS OF MANUFACTURE
TYPE OF JOINT (CIRCLE APPROPRIATE BOX)
WELDED **W** RIVETED **R** OTHER **O**

WATER RECORD
DATE **042975**
TIME **105**
WELL NO. **2**
WATER LEVEL (TO NEAREST FOOT)
WATER TEMPERATURE (TO NEAREST DEGREE)
WIND DIRECTION (TO NEAREST DEGREE)
WIND VELOCITY (TO NEAREST MILE PER HOUR)

HOURS PUMPED TO NEAREST MINUTE
PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON)
METHOD USED TO MEASURE PUMPING RATE
WATER LEVEL (DISTANCE FROM WELL TO NEAREST MEASUREMENT)
BEFORE PUMPING
WHEN PUMPING
TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)
FOR PUMPING TEST
A AIR **B** BENTONITE **C** CENTRIFUGAL **D** DIAPHRAGM **E** OTHER **F** JET **G** SUBMERSIBLE

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE BOX)
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
CAPACITY (GALLONS PER MINUTE TO NEAREST GALLON)
PUMP HORSE POWER
PUMP COLUMN LENGTH (NEAREST FOOT)
CIRCLING TYPES (CIRCLE APPROPRIATE BOX)
LAND SURFACE
WELL NO. **2**

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

Well No. 2

X well

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 05/28/75
MO-DA-YR

PERMIT NUMBER- CE-73-1195

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER

ID. NUMBER-

THE ABOVE-NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

ARMSTRONG, KARREN
BX 291B
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
07/31/75. AFTER COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (IN CASE)

STATE OF MARYLAND

WATER RESOURCES COMMISSION
TAKES STATE OFFICE BLDG. ANNAPOLIS MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

73-1195

0043
1-2-3 (REQ. NO.)
FIND NUMBER IN TO BE BOUNDED
IN COLS. 2-3 ON ALL SAMES

DATE RECEIVED
(DATA USE ONLY)

OWNER Armstrong, Robert
COT. NO. LAST NAME

STREET OR RD. Box 2015
COT. NO.

POST OFFICE Perryville, Md.
COT. NO.

CONTINUO
2-3 (REQ. NO.)

DATE 5-19-75

LICENSE NUMBER 159

DRILLER Verdon W. Kirk
FIRST NAME LAST NAME

LOCATION Verdon W. Kirk

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 300

AVERAGE DAILY QUANTITY (GALLONS PER DAY) 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ DOMESTIC (HOUSEHOLD USE ONLY)

☐ FARMING (AGRICULTURE, IRRIGATION)

☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

☐ MUNICIPAL WATER SUPPLY

☐ PRIVATE WATER

APPROXIMATE DEPTH OF WELL 6 (FEET)

APPROXIMATE DIAMETER OF WELL 6 (INCHES)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

☒ HAND DRIVEN

☐ POWER DRIVEN

☐ OTHER (SPECIFY)

REPLACEMENT OF DEPLETED WELLS (CIRCLE APPROPRIATE)

☐ YES

☐ NO

REPLACEMENT OF DEPLETED WELLS (CIRCLE APPROPRIATE)

☐ YES

☐ NO

REPLACEMENT OF DEPLETED WELLS (CIRCLE APPROPRIATE)

☐ YES

☐ NO

B13
1-2-3 (REQ. NO.)

COUNTY Cecil

SUBDIVISION 20

SECTION 40

NEAREST TOWN Charleston

MILES FROM TOWN CENTER 0 IF IN TOWN 7

B14
1-2-3 (REQ. NO.)

☒ NORTH ☐ EAST ☐ NORTHWEST

☐ SOUTH ☐ WEST ☐ SOUTHWEST

NEAR WHAT ROAD Carpenters Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 100

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO

ROADS AND SHOWING WITH NORTH IN THE DIRECTION OF THE

FACE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING

SKETCH ALSO SHOW BY MEANS OF AN "X" THE WELL LOCATION

AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

X well

Charstown

1070
1670

125000

000000

000000

000000

025 X 1 5/3

070 9/0

73-1195

DATE RECEIVED
9-3-75
DATE WELL COMPLETED
9-3-75
SEQUENCE NO.
90375

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAYES STATE OFFICE BLDG., ANNAPOLIS, MD. 21403
WELL COMPLETION REPORT

DEPTH OF WELL
90
DATE RECEIVED
9-3-75
DATE WELL COMPLETED
9-3-75
SEQUENCE NO.
90375

OWNER
Amstrong, Karen
STREET OR RFD
BX 2018
POST OFFICE

WELL LOG

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	TO	WATER BEARING
TOP soil	0	2	
brown sand	2	30	
gravel	30	66	
red clay	60	90	
white clay			
sand			

GROUTING RECORD
WELL HAS BEEN GROUTED.
(CIRCLE APPROPRIATE BOX)
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT (CM) SERTONITE CLAY (SC)
NO. OF BAGS 3 NO. OF BOUNDS 282
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
2 15

CASING RECORD
Casing Type (CIRCLE)
STEEL (S) CONCRETE (C)
MAIN NOMINAL DIAMETER (INCHES) 6
TOTAL DEPTH (NEAREST FOOT) 85

SCREEN RECORD
SCREEN TYPE (CIRCLE)
WIRE MESH (W) OPEN HOLE (O)
BRONZE (B) OTHER (OT)
DEPTH (NEAREST FOOT) 85 90

PUMP INSTALLED
TYPE OF PUMP (CIRCLE APPROPRIATE BOX)
AIR (A) CENTRIFUGAL (C) JET (J) SUBMERGIBLE (S)
CAPACITY
GALLONS PER MINUTE (TO NEAREST GALLON) 31
PUMP HORSE POWER 37
PUMP COLUMN LENGTH (NEAREST FOOT) 43
CASING HEIGHT (CIRCLE APPROPRIATE BOX)
ABOVE (A) BELOW (B)
LAND SURFACE 1
LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER LAND MARKS.
INDICATE NOT LESS THAN TWO DISTANCES
(MEASUREMENTS TO WELL).

20 ft to Septic Tank
House
X well

ENTERED 11 11

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE 07/28/75
MO DA YR

PERMIT NUMBER CE-73-1263

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY

RODEHEAVER, HUEY
CANVAS BACK LA
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

2. THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
07/28/76. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
OF COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

C 1 3332

1. 2. 3. (SEC. NO.)
(THIS NUMBER IS TO BE PUNCHED
IN COLUMNS 3-5 ON ALL CARDS)

DATE RECEIVED
(WPA USE ONLY)

8-9-75

DATE WELL COMPLETED

08/09/75

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAKES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

73-1263

DEPTH OF WELL

93

(TO NEAREST FOOT)

OWNER Rodeheaver, Huey
STREET OR RD. Charlestown

POST OFFICE Charlestown

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING.

DESCRIPTION OF FORMATIONS (USE ADDITIONAL SHEETS
IF NECESSARY)

DESCRIPTION	FROM	TO	CHECK WATER MARK
Top soil	0	2	
red clay	2	80	
white clay, sand	80	93	
gravel			

GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT ☒ BENTONITE CLAY ☐

NO. OF BAGS 3 NO. OF POUNDS 282

GALLONS OF WATER 20

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 2 TO 20 FT.

TESTED TO 20 FT. FROM SURFACE

CASING RECORD

CASING TYPE (CIRCLE BOX)

INSERT ☒ CONCRETE ☐

CODE ☐ PLASTIC ☐ OTHER ☐

MAIN CASING TYPE (CIRCLE BOX)

MINIMUM DIAMETER (INCHES) 6

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 88

OTHER CASING (IF USED)

DIAMETER (INCHES) 6 DEPTH (FEET) 88

SCREEN RECORD

SCREEN TYPE (CIRCLE BOX)

APPROPRIATE ☒ WELL ☐ BRASS ☐ OPEN HOLE ☐

CODE ☐ PLASTIC ☐ OTHER ☐

DEPTH (NEAREST WHOLE FOOT)

FROM 54 TO 93

TESTED TO 93 FT. FROM SURFACE

SCREEN TYPE (CIRCLE BOX)

APPROPRIATE ☒ WELL ☐ BRASS ☐ OPEN HOLE ☐

CODE ☐ PLASTIC ☐ OTHER ☐

DEPTH (NEAREST WHOLE FOOT)

FROM 54 TO 93

TESTED TO 93 FT. FROM SURFACE

SCREEN TYPE (CIRCLE BOX)

APPROPRIATE ☒ WELL ☐ BRASS ☐ OPEN HOLE ☐

CODE ☐ PLASTIC ☐ OTHER ☐

DEPTH (NEAREST WHOLE FOOT)

FROM 54 TO 93

TESTED TO 93 FT. FROM SURFACE

PUMPING RATE

GALLONS PER MINUTE TO NEAREST GALLON

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 20

WHEN PUMPING 20

TYPE OF PUMP USED (CIRCLE BOX)

A A.P. ☐ J JET ☐

C CENTRIFUGAL ☐ R ROTARY ☐

J JET ☐ S SUBMERSIBLE ☐

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX - SEE ABOVE: A, C, J, R, S)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON) 31

PUMP HORSE POWER 37

PUMP COLUMN LENGTH (NEAREST FOOT) 43

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

ABOVE ☒ BELOW ☐

LAND SURFACE 20

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS WELL, SEPTIC TANK, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

20ft

15ft

Septic Tank

House

DNR-127

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 07/30/75
MO DA YR

PERMIT NUMBER- CE-73-1274

ISSUED TO DRILLER- SHORE WELL DRILRS INC
CECILTON MD 21913

DRILLER
ID. NUMBER- 128

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY

GLENN, GEORGE
605 RIVERVIEW RD
CLAYMONT DE

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

VIOLATION OF ANY OF THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM

2. THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
01/31/76. WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

STATE OF MARYLAND

WATER RESOURCES ADMINISTRATION

TAMES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

73-1274

3883

SEQUENCE NO. (NRA USE ONLY)

THIS NUMBER IS TO BE PLACED IN COLS. 2-3 ON ALL CARDS

DATE RECEIVED

7-29-75

OWNER

COL 15, LAST NAME

Glenn, George

STREET OR RFD.

605 RIVINGTON RD.

POST OFFICE

Claymont, Delaware

COL 37

DRILLER INFORMATION

CONTINUED

1-2-3 (SEQ. NO.)

DATE 7/28/75

LICENSE NUMBER

138

DONALD S. NEWMAN

DRILLER

LAST NAME

Donald S. Newman

SIGNATURE

WELL INFORMATION

1-2-3 (SEQ. NO.)

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ DOMESTIC (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ FARMING, AGRICULTURE, IRRIGATION

☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

☐ MUNICIPAL WATER SUPPLY

☐ PRIVATE WATER COMPANY

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL

APPROXIMATE DIAMETER OF WELL

METHOD OF DRILLING USED (CIRCLE APPROPRIATE BOX)

☒ BORING (AIR-DRIVEN)

☐ AIR-DRIVEN

☐ AIR-DRIVEN

☐ AIR-DRIVEN

☐ AIR-DRIVEN

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☐ OTHER (DESCRIBE)

REMARKS (MENTION DEEPENED WELL, ETC.)

REMARKS (MENTION DEEPENED WELL, ETC.)

REMARKS (MENTION DEEPENED WELL, ETC.)

REMARKS (MENTION DEEPENED WELL, ETC.)

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REMARKS (MENTION DEEPENED WELL, ETC.)

REMARKS (MENTION DEEPENED WELL, ETC.)

2-3-4 (SEQ. NO.)

COUNTY

1-2-3 (SEQ. NO.)

SUBDIVISION

SECTION

NEAREST TOWN

MILES FROM TOWN (ENTER 0 IF IN TOWN)

DIRECTION TO ROAD

ON WHICH SIDE OF ROAD

DISTANCE FROM ROAD

(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD

DISTANCE FROM ROAD

(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

NEAR WHAT ROAD

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(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD

DISTANCE FROM ROAD

(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD

DISTANCE FROM ROAD

(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD

DISTANCE FROM ROAD

(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD

FORM 274 (2/73)

9752

SEQUENCE NO. (WPA USE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

73-1274

THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3-6 ON ALL CARDS

DEPTH OF WELL

167

DATE RECEIVED (WPA USE ONLY)

9/5/75

DATE WELL COMPLETED

09/05/75

UNLESS IDENTIFICATION NUMBER IS ENTERED

OWNER: glenn, George

POST OFFICE

STREET OR RFD: 605 Riverview Road

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, GRAIN, THICKNESS AND IF WATER BEARING.
(USE ADDITIONAL SHEETS IF NECESSARY)

DEPTH DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET	WATER BEARING
0-2 clay		
2-6 yellow clay sand		
6-7.5 white clay		
7.5-10.5 white clay sand		
10.5-13.5 fine white sand clay		
13.5-15.5 yellow white clay		
15.5-167 coarse yellow white sand		

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
YES ☐ NO ☒
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT ☒ M BENTONITE CLAY ☒ C
NO. OF BAGS NO. OF POUNDS
GALLONS OF WATER
NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 40 TO 54 FT
ENTER 0 IN FROM SURFACE

CASING RECORD
Casing Type: ☒ STEEL ☐ CONCRETE ☐ PLASTIC ☐ OTHER
Nominal Diameter: 160
Total Depth of Main Casing: 160
Casing Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER

OTHER CASING USED
Nominal Diameter: 160
Total Depth of Main Casing: 160
Casing Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER

SCREEN RECORD
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER
Screen Size: 160
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER

SCREEN RECORD
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER
Screen Size: 160
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER

SCREEN RECORD
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER
Screen Size: 160
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER

SCREEN RECORD
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER
Screen Size: 160
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER

SCREEN RECORD
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER
Screen Size: 160
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER

SCREEN RECORD
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER
Screen Size: 160
Screen Type: ☒ STEEL ☐ WOOD ☐ BRASS ☐ PLASTIC ☐ OTHER

PUMPING TEST
HOURS PUMPED (TO NEAREST HOUR)
PUMPING RATE
GALLONS PER MINUTE TO NEAREST GALLON
METHOD USED TO MEASURE PUMPING RATE
WATER LEVEL (DISTANCE FROM LAND SURFACE)
BEFORE PUMPING: 93
WHEN PUMPING: 125
TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX)
A AIR P PISTON
C CENTRIFUGAL R ROTARY
J JET S SUBMERSIBLE

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE LETTERS)
GRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
CAPACITY
GALLONS PER MINUTE (TO NEAREST GALLON)
PUMP HORSE POWER
PUMP COLUMN LENGTH (NEAREST FOOT)
Casing Height (CIRCLE APPROPRIATE BOX) AND ENTER CASING HEIGHT
+ ABOVE
- BELOW
LAND SURFACE
NEAREST FOOT

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

Handwritten note: 160

Handwritten note: 160

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 10/03/75
MO-DA-YR

PERMIT NUMBER- CE-73-1339

ISSUED TO DRILLER-

SHORE WELL DRILRS INC
CECILTON MD 21913

DRILLER
ID. NUMBER- 119

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

BETTER HOMES INC
479 ROBERTSHAY
ABERDEEN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
04/03/76. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1339

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAKES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

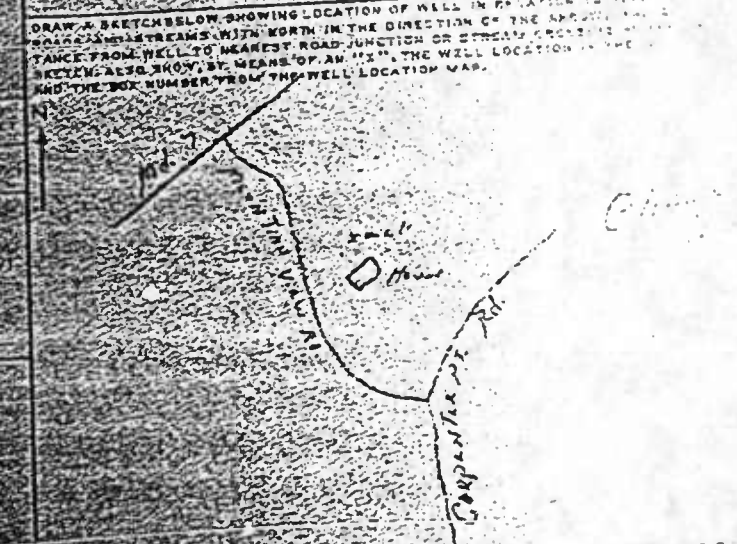
DATE RECEIVED (WRA USE ONLY)
5-24-75
OWNER COL 15 LAST NAME
479 ROBERTSON
STREET COL 36
P. Aberdeen, Maryland
POST OFFICE COL 37

DRILLER INFORMATION
B 1 CONTINUED
1 2 3 (SEQ. NO.)
10/1/75
OATS
DONALD S. NEWMAN
FIRST NAME
DONALD S. NEWMAN
LAST NAME
SIGNATURE

WELL INFORMATION
B 2
1 2 3 (SEQ. NO.)
MAXIMUM PUMPING RATE (GALLONS PER MINUTE)
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)
USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ DOMESTIC OR DOMESTIC HOUSEHOLD USE ONLY
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
MUST HAVE STATE HEALTH DEPT. APPROVAL
APPROXIMATE DEPTH OF WELL
APPROXIMATE DIAMETER OF WELL
METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
☒ HAND DRIVEN
☐ AIR DRIVEN
☐ ROTARY
☐ OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE)
☐ WELL WILL NOT BE REPLACED OR DEEPEMED
☐ WELL WILL BE REPLACED OR DEEPEMED
DATE OF REPLACEMENT OR DEEPEMING
REASON FOR REPLACEMENT OR DEEPEMING

B 3
1 2 3 (SEQ. NO.)
COUNTY
SUBDIVISION
SECTION
NEAREST TOWN
MILES FROM TOWN CENTER (IF IN TOWN)
DIRECTION FROM ROAD (CIRCLE APPROPRIATE)
NORTH EAST NORTHWEST
SOUTH WEST SOUTHWEST
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)
DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROAD, STREAMS, WITH NORTH IN THE DIRECTION OF THE ARROW. INDICATE DISTANCE FROM WELL TO NEAREST ROAD, JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOW BY MEANS OF AN "X" THE WELL LOCATION IN THE MAP AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



NO. 1070
NUMBER 2230
1651000
1075000
5/6

73-1339

DNR 214 9/21

9230

INQUIRY NO.
INQUIRY ONLY

STATE OF MARYLAND WATER RESOURCES ADMINISTRATION TAKES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401 WELL COMPLETION REPORT

 DATE RECEIVED
(FOR USE ONLY)
11/13/75

10/22/75

DEPTH OF WELL
185

DATE WELL COMPLETED

22 170 NEAREST FOOT. 23

111375

102275

OWNER Better Homes Inc.

157 Roberts Hwy

POST OFFICE

STREET OR RD

WELL DESCRIPTION

 WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND WATER BEARING

 DESCRIPTION
USE ADDITIONAL SHEETS
IF NECESSARY

FEET

FROM TO

WATER BEARING

 0/1 top soil
17/22 yellow clay-sand
22/125 yellow-white clay
125/158 red-white clay
158/179 white clay-sand
179/185 coarse white sand

GROUTING RECORD

 WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

 TYPE OF GROUTING MATERIAL (CIRCLE NO.)
CEMENT ☒ M BENTONITE CLAY ☒ B/C
45 48 45 46

NO. OF BAGS NO. OF POUNDS

NO ANNULAR SPACE

GALLONS OF WATER

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

 FROM 00 TO 24 FT.
ENTER 0 IF FROM SURFACE

CASING RECORD

 INSERT
APPROPRIATE
CODE
BELOW

S/T

C/O

CONCRETE

P/L

O/T

OTHER

 Casing Nominal Diameter Total Depth
Casing Top Depth (Casing of Main Casing)
Type Nearest Foot Nearest Foot
15 180

OTHER CASING IF USED

 Diameter Depth (Feet)
15 180
15 180

SCREEN RECORD

 SCREEN TYPE OR OPEN HOLE
INSERT
APPROPRIATE
CODE
BELOW
STEEL BRASS OPEN HOLE
OR BRONZE
P/L O/T
PLASTIC OTHER

 DEPTH OF NEAREST WHOLE FOOT
15 180

C/S

HOURS PUMPED TO NEAREST MINUTE

PUMPING RATE

GALLONS PER MINUTE TO NEAREST GALLON

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (DISTANCE FROM SURFACE)

BEFORE PUMPING 55

WHEN PUMPING 120

TYPE OF PUMPED USED (CIRCLE APPROPRIATE)

A AIR B WATER

C CENTRIFUGAL D ROTARY

J JET S SUBMERGIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, J, P, R, S, T, U)

ORILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING IN FEET)

A ABOVE B BELOW

LAND SURFACE 1 NEAREST FOOT

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING

SEPTIC TANKS, AND/OR OTHER LAND MARKS AND

INDICATE NOT LESS THAN TWO DISTANCE

MEASUREMENTS TO WELL.

House

X LK 11

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE-- 12/29/75
MO DA YR

PERMIT NUMBER-- CE-73-1401

ISSUED TO DRILLER--

SHORE WELL DRILRS INC

CECILTON MD 21913

DRILLER

ID. NUMBER-- 198

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY--

MCELYEA, WILLIAM
BX 33 RD 1
CECKTON MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL

06/28/76 OR WELL COMPLETION

REPORT MUST BE SUBMITTED TO

THE DEPARTMENT WITHIN 30 DAYS

AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

1433
THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-5 ON ALL CARDS

DATE RECEIVED
(TWA USE ONLY)

2/9/76

DATE WELL COMPLETED

DEPTH OF WELL
101

22 TO NEAREST FOOT 24

022312

010976

OWNER Malye, William

LAST NAME Box 33

POST OFFICE

STREET OR RFD

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION	FEET	CHECK WATER BEARING
USE ADDITIONAL SHEETS IF NECESSARY	FROM	TO
0/2 in.		
5/32 yellow clay sand		
32/71 yellow-white clay		
0/164 white-yellow-gray clay		
sand		
164/181 coarse yellow-white		
sand		

WELL DESCRIPTION

GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT ☒ M BENTONITE CLAY ☒ SC

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO ANNUAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 48 TO 54 FT. 58

FEET 0 IN. FROM SURFACE

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CASING RECORD

WELL HAS BEEN GROUTED

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT ☒ M BENTONITE CLAY ☒ SC

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO ANNUAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 48 TO 54 FT. 58

FEET 0 IN. FROM SURFACE

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OTHER CASING (IF USED)

WELL HAS BEEN GROUTED

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT ☒ M BENTONITE CLAY ☒ SC

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO ANNUAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 48 TO 54 FT. 58

FEET 0 IN. FROM SURFACE

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SCREEN RECORD

WELL HAS BEEN GROUTED

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT ☒ M BENTONITE CLAY ☒ SC

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO ANNUAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 48 TO 54 FT. 58

FEET 0 IN. FROM SURFACE

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HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE
(GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO
MEASURE PUMPING RATE

WATER LEVEL (DISTANCE FROM SURFACE)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (CIRCLE BOX)

(FOR PUMPING TEST)

A AIR ☒ B ROTARY

C CENTRIFUGAL ☒ D ROTARY

J JET ☒ S SUBMERSIBLE

27 27

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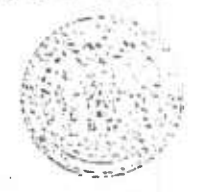
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STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 03/17/76
MO-DA-YR

PERMIT NUMBER- CE-73-1466

ISSUED TO DRILLER-

DIFILIPPO, C JR
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

DRILLER
ID. NUMBER- 250

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

ALGAR, HARRY
RT 7
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS ARE ON CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
09/15/76. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
OF COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1466

SEQUENCE NO. 7013
 DATE RECEIVED (FOR USE ONLY)
 DATE (SEC. NO. 1)
 THIS NO. 12 TO 42 PUNCHED
 IN COLS. 2-3 ON ALL 20000

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAKES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
 APPLICATION FOR PERMIT TO DRILL WELL

OWNER: Alcoa
 COL 13 EAST MAIN
 STREET OR RFD: Rt. 7
 COL 36
 POST OFFICE: Perryville, Md.
 COL 57

DRILLER INFORMATION
 B-1 CONTINUED
 DATE: March 15, 1956
 LICENSE NUMBER: 250
 FIRST NAME: Constantine D. Filippou
 LAST NAME: Constantine D. Filippou

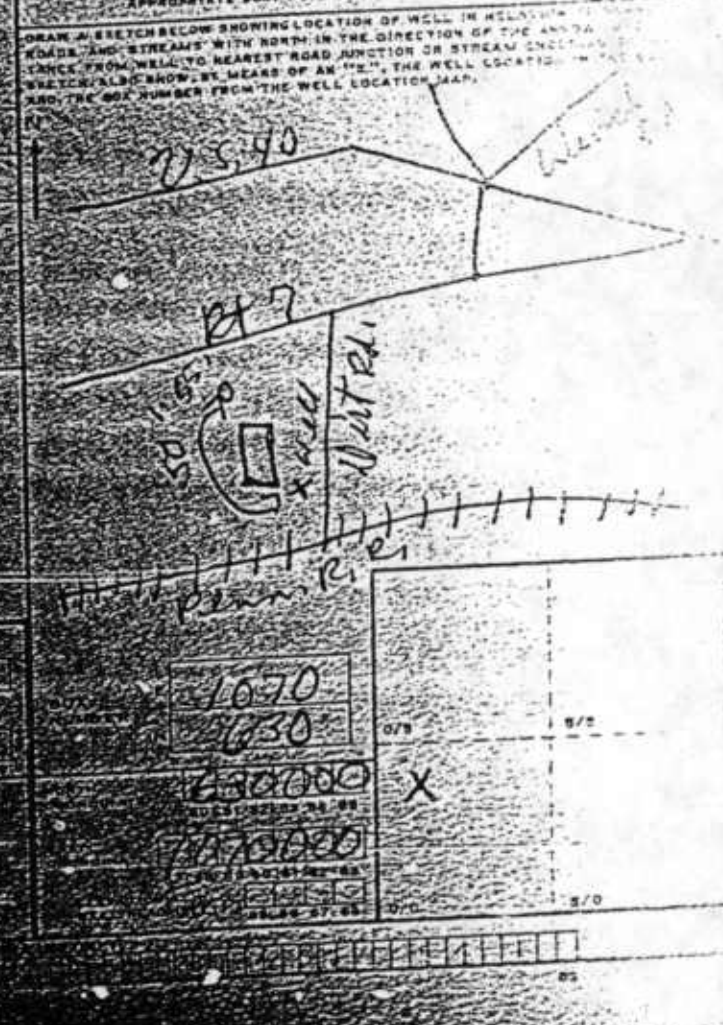
WELL INFORMATION
 B-2
 COUNTY: Ches.
 SUBDIVISION: 13
 SECTION: 44
 NEAREST TOWN: Perryville
 MILES FROM TOWN CENTER OR IF IN TOWN: 0.2

USE FOR WATER (CIRCLE APPROPRIATE BOX)
 (1) SINGLE OR DOUBLE HOUSEHOLD USE ONLY
 (2) AGRICULTURE, IRRIGATION
 (3) INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
 (4) MUNICIPAL WATER SUPPLY
 (5) PRIVATE WATER COMPANY
 (6) OTHER (SPECIFY)

APPROXIMATE DEPTH OF WELL: 100
 APPROXIMATE DIAMETER OF WELL: 6 INCHES (NEAREST INCH)
 METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
 (1) HAND DRILL
 (2) AUGER
 (3) AIR LIFT
 (4) OTHER (SPECIFY)

REPEAT WHEN DRILLING DEEPER WELLS (CIRCLE APPROPRIATE BOX)
 (1) 100 FEET OR DEEPER
 (2) 200 FEET OR DEEPER
 (3) 300 FEET OR DEEPER
 (4) 400 FEET OR DEEPER
 (5) 500 FEET OR DEEPER
 (6) 600 FEET OR DEEPER
 (7) 700 FEET OR DEEPER
 (8) 800 FEET OR DEEPER
 (9) 900 FEET OR DEEPER
 (10) 1000 FEET OR DEEPER

B-4
 DIRECTION FROM TOWN
 (CIRCLE APPROPRIATE BOX)
 (1) NORTH
 (2) EAST
 (3) SOUTH
 (4) WEST
 (5) NORTHWEST
 (6) SOUTHWEST
 (7) NORTHEAST
 (8) SOUTHEAST
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
 (1) NORTH
 (2) SOUTH
 DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)
 (1) 0-100
 (2) 100-200
 (3) 200-300
 (4) 300-400
 (5) 400-500
 (6) 500-600
 (7) 600-700
 (8) 700-800
 (9) 800-900
 (10) 900-1000



1070
 1030
 630000
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 800000
 900000
 1000000

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAYES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401

WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY) 4/20/76
DATE WELL COMPLETED 4/20/76

060476

DEPTH OF WELL 127
22 (TO NEAREST FOOT) 23

OWNER: Algar
LAST NAME: Algar
STREET OR RFD: Rt. 7
POST OFFICE: Centerville

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOUR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	TO	CHECK IF WATER BEARING
Topsoil	0	5	
Gravel & Sand	5	15	
Gray Granite	15	127	✓

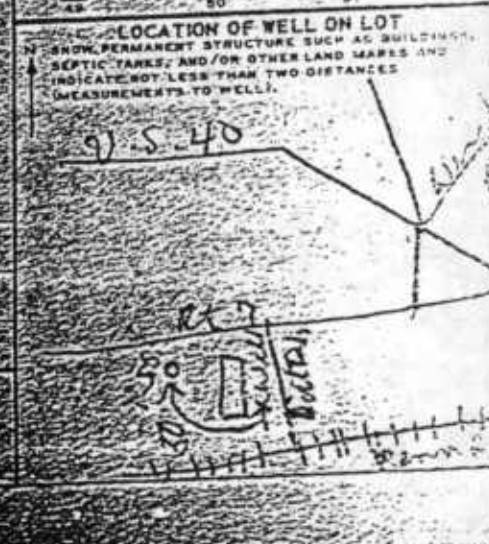
GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT (C) BENTONITE CLAY (B) C 45 46
NO. OF BAGS 3 NO. OF POUNDS 282
SACKS OF WATER 15
DEPTH OF GROUT SEAL (TO NEARST FOOT)
FROM 0 TO 20 FT.
ENTER 0 IF FROM SURFACE

CASING RECORD
Casing Type: STEEL (S) CONCRETE (C) CO
Casing Material: STEEL (S) CONCRETE (C) CO
Casing Diameter: 6 INCHES
Casing Depth: 20 FEET
Casing Type: STEEL (S) CONCRETE (C) CO
Casing Material: STEEL (S) CONCRETE (C) CO
Casing Diameter: 6 INCHES
Casing Depth: 20 FEET

SCREEN RECORD
Screen Type: STEEL (S) CONCRETE (C) CO
Screen Material: STEEL (S) CONCRETE (C) CO
Screen Diameter: 6 INCHES
Screen Depth: 20 FEET
Screen Type: STEEL (S) CONCRETE (C) CO
Screen Material: STEEL (S) CONCRETE (C) CO
Screen Diameter: 6 INCHES
Screen Depth: 20 FEET

PUMPING TEST
HOURS PUMPED 170
PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON) 30
METHOD USED TO MEASURE PUMPING RATE
WATER LEVEL (DISTANCE FROM SURFACE)
BEFORE PUMPING 30
WHEN PUMPING 30
TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)
A CENTRIFUGAL B HISTON C ROTARY D SUBMERSIBLE

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE LETTERS) A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES (Y) NO (N)
CAPACITY (GALLONS PER MINUTE TO NEAREST GALLON) 31
PUMP HORSE-POWER 37
PUMP COLUMN LENGTH (NEAREST FOOT) 43
CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
A ABOVE B BELOW C LAND SURFACE D NEAREST FOOT



STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE 04/06/76
MD DA 76

PERMIT NUMBER- CE-73-1481

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 150

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY

SIMPSON, EDGAR H
11327 RED LION RD
WHITE MARSH MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. CONFIRM SPECIFIC LOCATION FOR WELL WITH HEALTH DEPARTMENT
2. LOCATE WELL AT LEAST 150 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID ONLY
FOR THE LOCATION
REPORT MUST BE SUBMITTED TO
THE DEPARTMENT WITHIN 30 DAYS
OF THE DRILLING OF THE WELL

HERBERT H. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

5531

1 2 3 1950 NOV 1

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-5 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAYES STATE OFFICE ELDO., ANNAPOLIS, MD. 21403
WELL COMPLETION REPORT

73-1481

DATE RECEIVED (WRA USE ONLY) 12-9-76

DATE WELL COMPLETED 12-9-76

DEPTH OF WELL 60

22 TO NEAREST FOOT 26

010677

OWNER Simpson, Edgar H.

STREET OR RD 11327 Red Lion RD.

POST OFFICE WATER PLANT

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS, AND IF WATER BEARING.

DESCRIPTION	FEET	THICKNESS	IF WATER BEARING
Top Soil	0	2	
Brown Sand	2	20	
Red Clay	20	40	
White Sand	40	60	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT (CM) BENTONITE CLAY (BC)

NO. OF BAGS 4 NO. OF POUNDS 376

GALLONS OF WATER 294

DEPTH OF CHOUT SEAL (TO NEAREST FOOT)

FROM 2 TO 20

CASING RECORD

MAIN CASING TYPE (CIRCLE APPROPRIATE CODE)

STEEL (S) CONCRETE (C)

PLASTIC (PL) OTHER (OT)

MAIN CASING NOMINAL DIAMETER (INCH) 6

TOTAL DEPTH OF MAIN CASING (FEET) 55

OTHER CASING (IF USED)

DIAMETER (INCH) FROM TO

SCREEN RECORD

SCREEN TYPE (CIRCLE APPROPRIATE CODE)

BRASS (BR) IRON (IR)

WIRE (W) OTHER (OT)

DEPTH (NEAREST WHOLE FOOT) 60

HOURS PUMPED TO NEAREST HOUR

PUMPING RATE (GALLONS PER MINUTE) 30

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (INCHES) 40

BEFORE PUMPING 17

WHEN PUMPING 22

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX)

A AIR B ROTARY C CENTRIFUGAL D JET E SUBMERSIBLE

PUMP INSTALLATION

TYPE OF PUMP (WRITE APPROPRIATE LETTERS IN BOX - SEE ABOVE: A, C, D, E, P, S, T, U)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON) 31

PUMP HORSE POWER 37

PUMP COLUMN LENGTH (NEAREST FOOT) 43

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

LAND SURFACE 50

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANK, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE 05/05/07
MO DA YR

PERMIT NUMBER CE-73-1506

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY

GRAY, FLOYD
305 LANDING LA
ELKTON MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING NOTATION WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

2. THE ABOVE CONDITIONS PERFORM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
12/31/07. AFTER COMPLETION
REPORT TO THE DEPARTMENT
AFTER COMPLETION OF THE

ROBERT H. KACHS
DEPARTMENT OF MARYLAND
WATER RESOURCES
ADMINISTRATION

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TRINITY STATE OFFICE BLDG. ANNAPOLIS, MARYLAND 21403
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (MVA USE ONLY)
050876
OWNER: COL TS. LAST NAME
Gray Floyd
STREET OR RD: 305 Landing Lane
COL 55
POST OFFICE: ELKTON, MD
COL 57

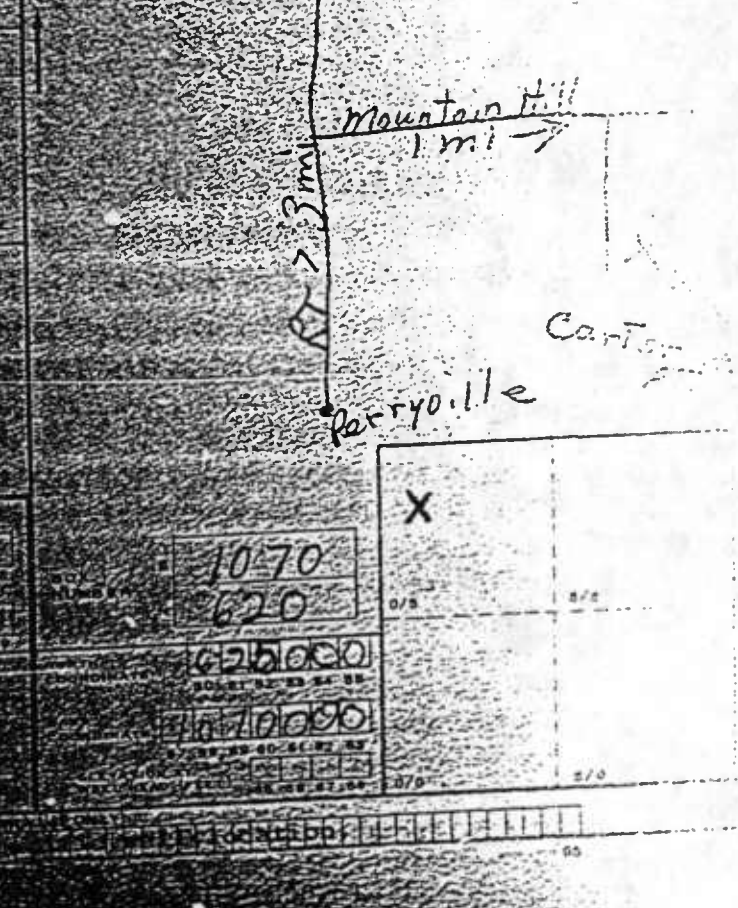
DRILLER INFORMATION
B 1 CONTINUED
1 2 3 (REQ. NO.)
DATE: 4-26-76
LICENSE NUMBER: 159
DRILLER: Vernon W. Kirk
FIRST NAME: Vernon
LAST NAME: Kirk
SIGNATURE: Vernon W. Kirk

WELL INFORMATION
B 2
1 2 3 (REQ. NO.)
MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 300
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300
USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ DOMESTIC OR DOMESTIC PURPOSES ONLY
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
☐ TEST

APPROXIMATE DEPTH OF WELL: 40
APPROXIMATE DIAMETER OF WELL: 6
SECTION OF DRILLING USED (CIRCLE APPROPRIATE BOX)
☒ HAND DRILL
☐ POWER DRILL
☐ AUGER
☐ OTHER
REMARKS ON DEEPENED WELLS (CIRCLE APPROPRIATE BOX)
☒ NO
☐ YES

B 3
1 2 3 (REQ. NO.)
COUNTY: Cecil
SUBDIVISION: 27
SECTION: 44
NEAREST TOWN: Perryville
MILES FROM TOWN (ENTER 0 IF IN TOWN): 4

B 4
1 2 3 (REQ. NO.)
DIRECTION FROM ROAD (CIRCLE APPROPRIATE BOX)
☒ NORTH
☐ EAST
☐ NORTHWEST
☐ SOUTH
☐ WEST
☐ SOUTHWEST
NEAR WHAT ROAD: Mountain Hill
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
☒ NORTH
☐ SOUTH
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 60
DRAWING SKETCH OF SHOWING LOCATION OF WELL IN RELATION TO ROAD AND STREAM WITH NORTH IN THE DIRECTION OF THE ROAD. YARDAGE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SKETCH ALSO SHOW BY MEANS OF AN "X", THE WELL LOCATION ON MAP AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



200 214 371
 C L 2979
 1 2 3 1880 40...
 (THIS NUMBER IS TO BE HUNG ON
 1880 40...

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TARZES STATE OFFICE BDDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (WEEK USE ONLY) 12-13-76
DATE FILED COMPLETED 12/13/76
010677 12/13/76

DEPTH OF WELL
65
22 112 NEAREST FOOT 20

OWNER Craig Floyd LAST NAME 505 Landing La POST OFFICE

POST OFFICE Elmer, Ark.

WELL LOG

STATE THE KIND OF FORMATIONS OBSERVED, THEIR COLOR, TEXTURE, THICKNESS AND IF WATER BEARING			
DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	IN FEET.		WATER BEARING
	FROM	TO	
Top soil	0	2	
fine sand	2	28	
gravel			
blue clay	30	45	
fine sand	45	65	

GROUTING RECORD YES NO
WELL HAS BEEN GROUTED Y N

(CINC. APPROPRIATE 20X) 45
 TYPE OF GROUTING MATERIAL (CIRCLE ONE) 45
 CEMENT C.M. BENTONITE CLAY B.C.
 NO. OF BAGS 4 NO. OF POUNDS 376
 GALLONS OF WATER 24
 DEPTH OF GROUT SEAL (TO NEAREST FOOT)
 FROM 2 TO 0
 CENTER OF PIPE FROM SURFACE 0

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED
DATE 07-10-2001 BY 60322 UCBAW

APPROPRIATE CODE BELOW

ELASTIC ☒ OTHER ☐

MAIN CASING TYPE: 37

NOMINAL DIAMETER: 6

TOTAL DEPTH: 60

CONCRETE ☒

ENTER OTHER CASING (if used) _____

SCREEN RECORD

DO NOT WRITE IN THESE SPACES

STEEL	PLASTIC
OPEN HOLE	OTHER
Q.T.	Q.T.

C Q.T.

DEPTH (NEAREST WHOLE FOOT)

[illegible]

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

HOURS PUMPED (TO NEAREST FIFTY)

PUMPING RATE
(GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO
MEASURE PUMPING RATE

WATER LEVEL (DISTANCE FROM LAND SURFACE
BEFORE PUMPING) 25

WHEN PUMPING 45

TYPE OF PUMPED USED (CIRCLE NUMBER)
(FOR PUMPING TEST)

☐ A AIR ☐ D HYDRA ☐ F

☐ C CENTRIFUGAL ☐ R ROTARY ☐ G

☐ J JET ☐ S SUBMERSIBLE

Bailer

PUMP INSTALLED

TYPE OF PUMP (WHILE
BOX - SEE ABOVE: A, C, J, P, R, S, T, Z)

DRILLER WILL INSTALL PUMP
(SINGLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE
(TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH
(NEAREST FOOT)

CASING HEIGHT (SINGLE APPROPRIATE BOX
AND ENTER CASE NO. ABOVE)

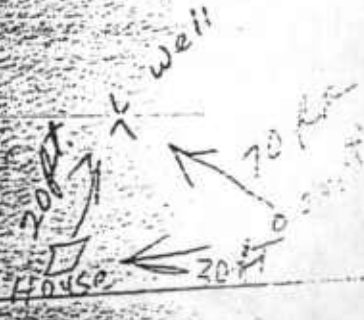
ABOVE
BELOW

LAND SURFACE

50 51

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS FENCE, DRIVE, ETC.

SEPTIC TANKS, AND/OR OTHER LARVA
INDICATE NOT LESS THAN TWO DISTANCE
(MEASUREMENTS TO WELL).



STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE - 06/17/76
MO DA YR

PERMIT NUMBER - CE-73-1526

ISSUED TO DRILLER -

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER - 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY:

HARRIS, DONALD S
17 ONAWAY PL
NEW CASTLE DE

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
12/31/76. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1588

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAYLOR STATE OFFICE BLDG., ANNAPOLIS, MD. 21403
WELL COMPLETION REPORT

OWNER: Harris, Donald
STREET OR RD: 17 Ohaway Pl
POST OFFICE: New Castle

WELL LOG

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET	CHECK IF WATER BEARING
Top soil	0-2	
red clay	2-30	
yellow clay	30-55	
sand	55-90	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

LEWEE ☒ BENTONITE CLAY ☐

NO. OF BAGS: 6 NO. OF POUNDS: 564

GALLONS OF WATER: 36

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM: 2 FT. TO: 30 FT.

CASING RECORD

MAIN CASING TYPE: ☒ CONCRETE ☐ PLASTIC ☐ OTHER

NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH): 6

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT): 85

OTHER CASING (IF USED)

SCREEN RECORD

SCREEN TYPE: ☒ BRASS ☐ PLASTIC ☐ OTHER

SCREEN DEPTH (NEAREST FOOT): 90

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

☒ ABOVE ☐ BELOW

LAND SURFACE: 1 FEET

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

Handwritten notes:

- X well
- 15 ft
- House
- 30 ft
- Septic

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE 06/25/76
MO-DA-YR

PERMIT NUMBER- CE-73-1597

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

GOOD, RODNEY C
P O BOX 27
SILVER SPRING PA

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
12/25/76 - A WELL COMPLETION

REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73-1597

MD-131 (7/73)

EMERGENCY NO. (IF ANY)

0060
SEQUENCE NO. (PUNCHED)
THIS NUMBER IS TO BE PUNCHED IN COLS. 2-8 ON ALL CARDS

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAKES STATE OFFICE BLDG., ANnapolis, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (MRA USE ONLY)
062576

OWNER: Good Rodney C
COL 15 LAST NAME
STREET OR RFD: PO Box 27
COL 36
POST OFFICE: Silver Spring, Pa
COL 67

LOCATION DATA
COUNTY: Cecil
SUBDIVISION: 23
SECTION: 44
NEAREST TOWN: Charles Town
MILES FROM TOWN (ENTER 0 IF IN TOWN): 0

DRILLER INFORMATION
DATE: 6-14-76
LICENSE NUMBER: 159
DRILLER: Vernon W Kirk
FIRST NAME: Vernon
LAST NAME: Kirk
SIGNATURE: Vernon W Kirk

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)
N NORTH
S SOUTH
E EAST
W WEST
NE NORTHEAST
NW NORTHWEST
SE SOUTHEAST
SW SOUTHWEST

WELL INFORMATION
MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 3
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 300
USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMER, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
MUST HAVE STATE HEALTH DEPT. APPROVAL

NEAR WHAT ROAD: Edgewater Road
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
N NORTH
S SOUTH
E EAST
W WEST
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 20

APPROXIMATE DEPTH OF WELL: 70 FEET
APPROXIMATE DIAMETER OF WELL: 4 INCHES
METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
☒ HAND OR AUGER
☐ ROTARY
☐ AIR-ROTOR
☐ AIR-PERCUSSION
☐ ROTARY-HYDRAULIC
☐ REVERSE ROTARY
☐ DRIVE POINT
OTHER (DESCRIBE):
REPLACEMENT OR DEEPENDING WELLS (CIRCLE APPROPRIATE)
☐ NEW WELL WILL NOT REPLACE AN EXISTING WELL
☒ EXISTING WELL WILL BE REAMED AND SEALED

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE "P" ARROW. MEASURE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOW BY MEANS OF AN "X" THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

NO. TO BE FILLED BY CITY ENGINEER (MRA USE ONLY)
DATE OF PERMIT: 6-14-76
EXPIRATION DATE: 6-14-77
FEE: 10.00

Sketch showing location of well in relation to roads and streams. Includes labels for Charles Town, Manor, Septic Tank, and House.

73-1597

DWR 214 9/71

C 1 5047

SEQUENCE NO.
(FOR DRILLER ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAKES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

THIS NUMBER IS TO BE PUNCHED
IN COL. 3-6 ON ALL CARDS

DATE WELL COMPLETED
8-24-76

DEPTH OF WELL

40
(TO NEAREST FOOT)

002738
082476

OWNER Good Rodney

STREET OR RPO PO Box 27

POST OFFICE Silver Spring

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	TO	CHECK IF WATER BEARING
Top soil	0	2	
brown sand & gravel	2	15	
yellow clay	15	30	
& sand			
Brown sand & gravel	30	40	✓

GROUTING RECORD
WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT ☒ BENTONITE CLAY ☐
NO. OF BAGS 3 NO. OF POUNDS 282
GALLONS OF WATER 18

DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 2 FT. TO 20 FT.
(ENTER 0 IF FROM SURFACE)

CASING RECORD
Casing Type: ☒ STEEL ☐ CONCRETE
☐ PLASTIC ☐ OTHER
MAIN NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH) 5.7
TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 35

OTHER CASING (IF USED)
Casing Type: ☐ STEEL ☐ CONCRETE
☐ PLASTIC ☐ OTHER
Diameter (Inch) 5.7 Depth (Feet) 35

SCREEN RECORD
Screen Type: ☒ INSERT ☐ BRASS OPEN HOLE
☐ PLASTIC ☐ OTHER
Depth (Feet) 35

DEPTH (NEAREST WHOLE FOOT)
35

PUMPING TEST
HOURS PUMPED (TO NEAREST HOUR) 2

PUMPING RATE
GALLONS PER MINUTE TO NEAREST GALLON 18
METHOD USED TO MEASURE PUMPING RATE Barometer

WATER LEVEL (DISTANCE FROM SURFACE TO WATER)
BEFORE PUMPING 5
WHEN PUMPING 20

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)
A AIR ☐ F PISTON ☐ J JET ☐
C CENTRIFUGAL ☐ H ROTARY ☐ S SUBMERSIBLE ☐
Barometer

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, J, F, H, S, T, B)

DRILLER WILL INSTALL PUMP
(CIRCLE APPROPRIATE BOX) ☐ YES ☒ NO
CAPACITY:
GALLONS PER MINUTE (TO NEAREST GALLON) 31

PUMP HORSEPOWER 37
PUMP COLUMN LENGTH (NEAREST FOOT) 43

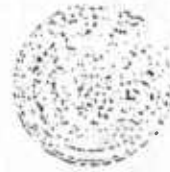
CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
☒ ABOVE ☐ BELOW
LAND SURFACE (NEAREST FOOT) 49

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

X well
15 ft
House
120 ft
septic

ENTERED 1 1 1 1

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE 06/28/76
MO. DA. YR.

PERMIT NUMBER- CE-73-1598

ISSUED TO DRILLER-

PRESTON & HAMILTON 1
15 N. PARADISE ROAD
HAVRE DE GRACE MD 21078

DRILLER

ID. NUMBER- 112

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

WARRINGTON, JOHN
RD 1 BX 223
PERRYVILLE MD 21903

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL

12/28/76. A WELL COMPLETION

REPORT MUST BE SUBMITTED TO

THE ADMINISTRATION WITHIN 30 DAYS

AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (SEE PAGE 1)

73-1598

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAYLOR STATE OFFICE BLDG., EIGHTH FLOOR, BALTIMORE, MARYLAND 21201
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED
MAY 1973

OWNER
WARRINGTON
COL 10 - LAST NAME

STREET OR RMD
Box 223
COL 25

POST OFFICE
Perryville, Md. 21903
COL 57

DRILLER INFORMATION

DATE
3-3-76

LICENSE NUMBER
112

DRILLER
Charles H. Hamilton, Jr.
FIRST NAME LAST NAME

SIGNATURE
Charles H. Hamilton, Jr.

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)
10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)
1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ DOMESTIC (HOUSEHOLD USE ONLY)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY

APPROXIMATE DEPTH OF WELL
100

APPROXIMATE DIAMETER OF WELL
6

METHOD OF DRILLING (CIRCLE APPROPRIATE BOX)
☒ HAND-DRIVEN
☐ POWER-DRIVEN
☐ OTHER (SPECIFY)

REPLACEMENT OR DEEPENDING WELLS (CIRCLE APPROPRIATE)
☐ YES (CIRCLE APPROPRIATE)
☒ NO (WELL WILL BE ABANDONED AND SEALED)

COUNTY
Cecil

SUBDIVISION
22

SECTION
34

NEAREST TOWN
Perryville

MILES FROM TOWN (ENTER 0-10 IF TOWN)

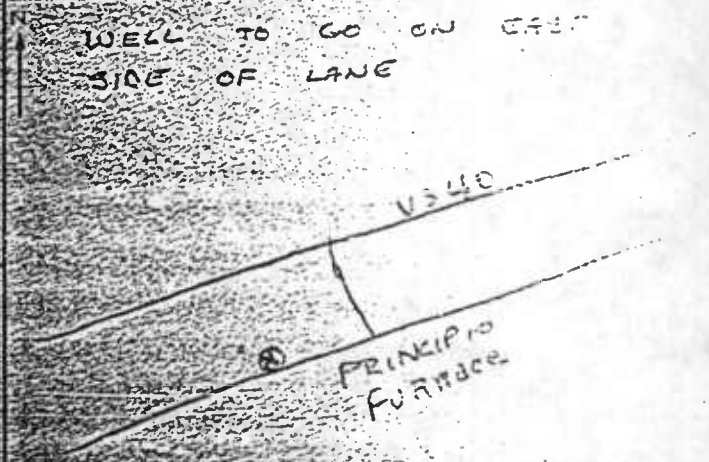
DIRECTION FROM ROAD (CIRCLE APPROPRIATE)
☒ NORTH
☐ SOUTH
☐ EAST
☐ WEST
☐ NORTHEAST
☐ SOUTHWEST

NEAR WHAT ROAD
Principio

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE)
☒ NORTH
☐ SOUTH

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE)
50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS, AND STREAMS, WITH NORTH IN THE DIRECTION OF THE ARROW. TAKE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM JUNCTION. SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



NO. 7
1070

NO. 8
650

NO. 9
1635000

NO. 10
7070000

NO. 11
0221

NO. 12
020

NO. 13
30

73-1598

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TANES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

SEQUENCE NO. 109
DATE RECEIVED (WELL USE ONLY)
DATE WELL COMPLETED
WELL NO. 109
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-5 ON ALL CARDS)

DEPTH OF WELL

22 (TO NEAREST FOOT)

078177
8-13

DATE WELL COMPLETED

051037

OWNER

LAST NAME

Warrington
R.O. 1 box 223

POST OFFICE

STREET OR RFO

WELL LOG

WELL DESCRIPTION

GROUTING RECORD

YES NO

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)
☒ Y ☐ N

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

☒ CEMENT ☐ BENTONITE CLAY

NO. OF BAGS 6 NO. OF POUNDS 600

GALLONS OF WATER 30

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 0 FT. TO 36 FT.

(ENTER 0 IF FROM SURFACE)

CASING RECORD

☒ STEEL ☐ CONCRETE

☒ PLASTIC ☐ OTHER

☒ 37 6 37

OTHER CASING (IF USED)

☐ DIAMETER (INCH) ☐ DEPTH (FEET)

SCREEN RECORD

☐ STEEL ☐ BRASS ☐ OPEN HOLE

☐ PLASTIC ☐ OTHER

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 2

C 3

1 2 3 RECORD

HOURS PUMPED TO NEAREST HOUR

PUMPING RATE

GALLONS PER MINUTE TO NEAREST GALLON

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (DISTANCE FROM SURFACE)

DEFORE PUMPING

WHEN PUMPING

TYPE OF PUMPED USED (CIRCLE BOX)

☒ A AIR ☐ F FISTON

☐ C CENTRIFUGAL ☐ R ROTARY

☐ J JET ☐ S SUBMERGIBLE

PUMP INSTALLATION

TYPE OF PUMP (WRITE APPROPRIATE BOX)

BOX - SEE ABOVE: A, C, J, P, R, S, T, U

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX)

☒ ABOVE ☐ BELOW

LAND SURFACE

INCHES

FEET

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.

House

70'

well

System

DNR 137
STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 09/23/76
MO DA YR

PERMIT NUMBER- CE-77-1756

ISSUED TO DRILLER-

DIFILIPPO, C JR
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

DRILLER
ID. NUMBER-

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

ROBINSON, LEROY
GREENBANK
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREENBANK SUBDIVISION, SECTION- , LOT- 3 ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
03/23/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

1276
1 2 3 (SEQ. NO.) 4
THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL PAPERS

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

68-73-1756

Leroy

DATE RECEIVED
(WRA USE ONLY)

OWNER Rx Robinson
COL 15 LAST NAME

STREET
OR RFO Greenbank
COL 32

POST
OFFICE Charlestown, Md.
COL 57

DRILLER INFORMATION

1 2 3 (SEQ. NO.) 4
DATE Sept. 22, 1976 LICENSE NUMBER 250
Constantine DiFilippo
FIRST NAME DRILLER LAST NAME

SIGNATURE Constantine DiFilippo

WELL INFORMATION

1 2 3 (SEQ. NO.) 4
MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 800
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 8

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ F FARMING, AGRICULTURE, IRRIGATION
☐ I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
☐ M MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL
☐ P PRIVATE WATER COMPANY
☐ T TEST

APPROXIMATE DEPTH OF WELL 100 FEET
APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN
30-37 AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- ☒ N THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ D THIS WELL WILL DEEPEAN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEANED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER 5A ENGINEER REVIEW DISTRICT NO. 65
FORCE 67 WRITE INITIALS IN BOX 68 CONDITIONS 70 71 72 73 74 75 76 77 78 79

HEALTH DEPARTMENT APPROVAL

1 2 3 (SEQ. NO.) 4
DATE 09/24/76 STATE HEALTH OFFICE NO. 64
APPROVED BY Cecil A. Sumner (P) COUNTY NAME CECIL COUNTY NO. 5

LOCATION OF WELL

1 2 3 (SEQ. NO.) 4
COUNTY Cecil

SUBDIVISION Greenbank

SECTION 44

NEAREST TOWN Charlestown

MILES FROM TOWN 2

DIRECTION FROM TOWN 2

1 2 3 (SEQ. NO.) 4
N NORTH E EAST S SOUTH W WEST

YEAR WHAT ROAD Burnt Run

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 34

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. INDICATE DISTANCE FROM WELL TO NEAREST ROAD AND TO NEAREST STREAM. DRAW A SKETCH, ALSO SHOW, BY MEANS OF AN ARROW, THE WELL LOCATION IN RELATION TO THE BOX NUMBER FROM THE WELL LOCATION MAP.

Sketch showing location of well in relation to Burnt Run road and Greenbank stream. Well is located 34 feet from road, on the west side.

First hand top rd.

1080
630

North Coordinate 50 51 52 53 54 55

East Coordinate 57 58 59 60 61 62 63

ELEVATION AT WELL HEAD (FEET) 65 66 67 68

ORIGINAL

2-14-71
 C 1 2535
 1 2 3 (SEQ. NO.)
 THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS
 DATE RECEIVED (WRAUSE ONLY)
 110977
 SEQUENCE NO. (WRAUSE ONLY)
 100676

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
 WELL COMPLETION REPORT

73-1756
 DATE OF COMPLETION
 05-17-76
 24 25 26 27 28 29 30 31

DATE WELL COMPLETED 05-17-76
 DEPTH OF WELL 84
 22 170 NEAREST FOOT 25
 OWNER Robinson
 LAST NAME
 STREET OR RFD Greenbank
 POST OFFICE Leroy
 Charlestown, MD.

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	TO	CHECK IF WATER BEARING
Topsoil & gravel	0	30	
clay white	30	60	
white Sand	60	70	
coarse sand	70	84	

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
☒ YES ☐ NO

TYPE OF GROUTING MATERIAL (CIRCLE BOX)
☒ CEMENT ☐ BENTONITE CLAY

NO. OF BAGS 7 NO. OF POUNDS 700
 GALLONS OF WATER 42
 DEPTH OF GROUT SEAL (TO NEAREST FOOT)
 FROM 0 FT. TO 40 FT.
 (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES (CIRCLE APPROPRIATE BOX)
☒ S T ☐ C C ☐ P L ☐ O T

MAIN CASING TYPE S T
 NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH) 6
 TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 79

OTHER CASING (IF USED)

DIAMETER (INCH)	DEPTH (FEET) FROM	TO

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE (CIRCLE APPROPRIATE BOX)
☒ S T ☐ B R ☐ H O

STEEL BRASS OR BRONZE OPEN HOLE
☐ P L ☐ O T
 PLASTIC OTHER

DEPTH (NEAREST WHOLE FOOT)
 FROM 79 TO 84
 1 2 3 (SEQ. NO.)
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DIAMETER OF SCREEN 6 (NEAREST INCH)
 FROM 50 TO 70
 GRAVEL PACK
 IF WELL GRILLED WAS A FLOWING WELL CIRCLE BOX ☒ YES ☐ NO

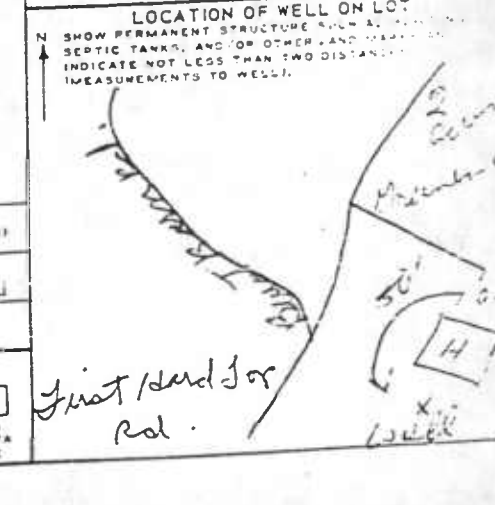
WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 (E.R.O.S.)
 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
 TELESCOPE CASING LOG INDICATOR OTHER DATA AVAILABLE

PUMPING TEST

POINT MEASURED TO NEAREST FOOT
 PUMPING RATE
 GALLONS PER MINUTE TO NEAREST GALLON
 METHOD USED TO MEASURE PUMPING RATE
 WATER LEVEL (DISTANCE TO NEAREST FOOT)
 BEFORE PUMPING 60
 WHEN PUMPING 60
 TYPE OF PUMPED USED (CIRCLE BOX)
☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER)
 PUMP HORSE POWER
 PUMP COLUMN LENGTH (NEAREST FOOT)
 CASING HEIGHT (CIRCLE APPROPRIATE BOX)
☒ + ABOVE ☐ - BELOW
 LAND SURFACE
 LOCATION OF WELL ON LOT



CIRCLE APPROPRIATE BOXES

☐ A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
☐ E ELECTRIC LOGS OBTAINED
☐ P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLER'S NAME
 Constantine DiFilippo
 SIGNATURE
 Constantine DiFilippo

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 11/10/78
NO DAYR

PERMIT NUMBER- CE-73-1814 ¹⁸¹⁴

ISSUED TO DRILLER-

SHORE WELL DRILRS INC

DRILLER

ID. NUMBER- 111

CECILTON MD 21913

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

GREENE, DAVID
PERRY PT
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

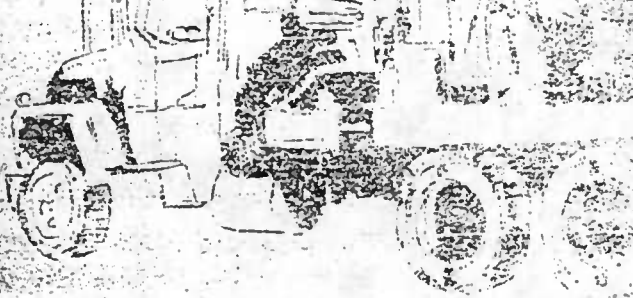
FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
05/10/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION



WRA COPY

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

1 2 3 (SEC. NO.) 0
THIS NUMBER IS TO BE PUNCHED
IN COLS. 2-3 ON ALL CARDS

DATE RECEIVED
(WRA USE ONLY)

111076

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

73-1814
FILE IN FILE

OWNER COL 13 LAST NAME
GREENE, David

STREET OR RFD COL 38
PERRY PT.

POST OFFICE COL 57
PERRYVILLE, Maryland

B 11 CONTINUED
1 2 3 (SEC. NO.) 6

DATE 11/5/76 LICENSE NUMBER 135

FIRST NAME DONALD S. NEWNAM DRILLER LAST NAME

SIGNATURE Donald S. Newnam

B 12 WELL INFORMATION
1 2 3 (SEC. NO.) 5

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 1000

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 156

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ FARMING, AGRICULTURE, IRRIGATION

☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.

☐ MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL

☐ PRIVATE WATER COMPANY

☐ TEST

APPROXIMATE DEPTH OF WELL 156 FEET

APPROXIMATE DIAMETER OF WELL 4 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

☒ BORED (OR AUGERED) ☐ JETTED ☐ DRIVEN

☐ AIR-ROTARY ☐ AIR-PERCUSSION ☐ ROTARY (HYDRAULIC ROTARY)

☒ CABLE ☐ REVERSE-ROTARY ☐ DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

☐ THIS WELL WILL DEEPM AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER 54 ENGINEER REVIEW DISTRICT NO. 63

FORCE 57 WRITE INITIALS IN BOX 58 CONDITIONS 70 71 72 73 74 75 76 77 78 79

B 14 CONTINUED
1 2 3 (SEC. NO.) 6

STATE HEALTH (CIRCLE BOX) 5 COUNTY NAME Cecil COUNTY NO. 01

DATE 11/09/76 MO. DAY YR. 11 09 76

APPROVED BY Wm. A. Summer

B 15 SPECIAL CONDITIONS 8-63

B 3 LOCATION OF WELL
1 2 3 (SEC. NO.) 6

COUNTY Charles

SUBDIVISION 03

SECTION 44

NEAREST TOWN Charles Town

MILES FROM TOWN 1.5

DIRECTION FROM TOWN

NEAR WHAT ROAD Burnt Burner Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 34

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. INDICATE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CENTER. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION ON THE SKETCH. ALSO SHOW THE BOX NUMBER FROM THE WELL LOCATION MAP.

Sketch showing location of well in relation to roads and streams. The sketch includes a north arrow pointing upwards. A road labeled "Burnt Burner Rd" runs vertically. A road labeled "Carpenter Pt Road" runs diagonally from the bottom right towards the center. A stream labeled "Carpenter Pt" runs horizontally across the middle. A well location is marked with an "X" near the intersection of the roads. A box number "1070" is written near the well location. A north arrow is labeled "N".

BOX NUMBER 1070

NORTH COORDINATE 1625000

EAST COORDINATE 1070000

ELEVATION AT WELL HEAD (FEET) 620

3134

SEQUENCE NO. (WRA USE ONLY)

DATE RECEIVED (WRA USE ONLY)

012677

DATE WELL COMPLETED

01/14/77

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLOC, ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DEPTH OF WELL

CE-73-1814

OWNER: Green, David

STREET OR RFD

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM 1 TO	CHECK IF WATER BEARING
2/2 top soil		
2/25 yellow-white clay sub-soil		
25/60 yellow sand-clay		
60/95 red-white clay		
95/114 coarse white-yellow sand		

WELL DESCRIPTION

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT ☒ M BENTONITE CLAY ☒ C

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 48 52 54 58

CASING RECORD

INSERT APPROPRIATE CODE BELOW

STEEL ☒ S CONCRETE ☒ C

PLASTIC ☒ P OTHER ☒ O

MAIN CASING TYPE

NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)

60 62 64 66 68 70

OTHER CASING (IF USED)

DIAMETER (INCH)

DEPTH (FEET) FROM TO

60 62 64 66 68 70

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE

INSERT APPROPRIATE CODE BELOW

STEEL ☒ S BRASS ☒ B OPEN HOLE ☒ H

PLASTIC ☒ P OTHER ☒ O

EACH SCREEN

DEPTH (NEAREST WHOLE FOOT)

FROM TO

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DIAMETER OF SCREEN (NEAREST INCH)

FROM TO

GRAVEL PACK

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

TELETYPE CASING

LOG INDICATOR

PUMPING TEST

NO. OF PUMPS

MEASURE PUMPING RATE

WATER LEVEL (NEAREST FEET)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMPED USED (CIRCLE BOX)

AIR ☒ A ELECTRIC ☒ E

CENTRIFUGAL ☒ C ROTARY ☒ R

JET ☒ J OTHER ☒ O

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

LAND SURFACE

NEAREST FOOT

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.

1100

1100

1100

1100

1100

1100

1100

CIRCLE APPROPRIATE BOXES

A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

ELECTRIC LOG OBTAINED

TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLER'S NAME

PLEASE PRINT: Donald S. Newman

SIGNATURE: Donald S. Newman

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 03/04/77
MO DA YR

PERMIT NUMBER- CE-73-1931

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

DARVIS, ROGER E
950 HILLSWOOD RD
BELAIR MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

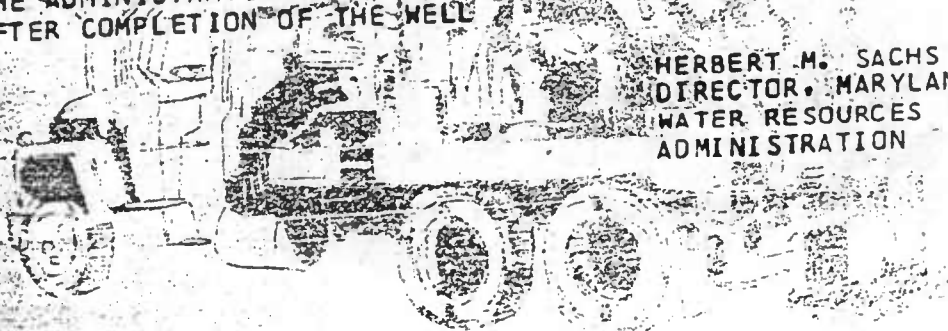
FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
09/04/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION



ONE 214 2/71
 C 1 3627
 2 3 (SEQ. NO.)
 THIS NUMBER IS TO BE RUNCHED
 IN COLS. 3-6 ON ALL CARDS

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
 WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY)
 040673
 DATE WELL COMPLETED
 8-31-77

DEPTH OF WELL
 110

OWNER Dargis Roger E.
 STREET OR RD 950 Hillwood Rd.

POST OFFICE Beltair Md.
 73-1931

WELL LOG
 STATE THE KIND OF FORMATIONS PENETRATED, THEIR
 COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION	FEET	CHECK IF WATER BEARING
FROM	TO	
Top soil	0 2	
Brown sand & gravel	2 32	
red clay	32 92	
white sand & clay	92 100	
white sand	100 110 ✓	

GROUTING RECORD
 WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
 TYPE OF GROUTING MATERIAL (CIRCLE)
 CEMENT (C) M. S. CEMENT (M)
 NO. OF BAGS 3 NO. OF POUNDS 282

GALLONS OF WATER 18
 DEPTH OF GROUT SEAL TO NEAREST FOOT
 FROM 2 FT. TO 15 FT.

CASING RECORD
 CASING TYPE (CIRCLE)
 INSERT APPROPRIATE CODE BELOW
 CONCRETE (C) PLASTIC (P) L. OTHER (O) T.

MAIN CASING TYPE (CIRCLE)
 S T 6 105

OTHER CASING (IF USED)
 DIAMETER (INCH) DEPTH (FEET)
 FROM TO

SCREEN RECORD
 SCREEN TYPE OR OPEN HOLE (CIRCLE)
 INSERT APPROPRIATE CODE BELOW
 BRASS OR BRONZE (B) L. PLASTIC (P) L. OTHER (O) T.

DEPTH (NEAREST WHOLE FOOT)
 FROM 105 TO 110

DIAMETER OF SCREEN 6 (NEAREST INCH)
 FROM 36 TO 60

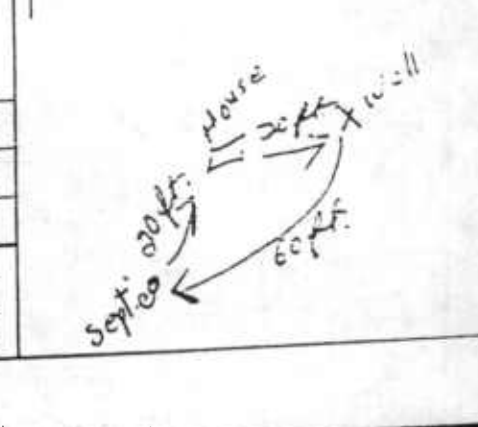
GRAVEL PACK
 IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 TELESCOPE CASING LOG INDICATOR

PUMP TEST
 TYPE OF PUMP USED
 FOR PUMPING TEST
 A. AIR C. CENTRIFUGAL J. OTHER
 27 27 27
 Bailer

PUMP INSTALLED
 TYPE OF PUMP (CIRCLE)
 BOX - SEE ABOVE
 DRILLER WILL INSTALL PUMP (CIRCLE)
 (CIRCLE APPROPRIATE BOX)
 CAPACITY
 GALLONS PER MINUTE (TO NEAREST GALLON)
 PUMP HORSE POWER
 PUMP COLUMN LENGTH (NEAREST FOOT)
 CASING HEIGHT (CIRCLE)
 ABOVE (A) BELOW (B)

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURES, SEPTIC TANKS, AND OR OTHER LAND MARKS
 INDICATE NOT LESS THAN 100 FEET DISTANCE
 MEASUREMENTS TO WELL



CIRCLE APPROPRIATE BOXES
 A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
 E ELECTRIC LOG OBTAINED
 P TEST WELL CONVERTED TO PRODUCTION WELL
 I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "RESMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.
 DRILLER'S NAME
 PLEASE PRINT Vernon W. Kirk
 SIGNATURE Vernon W. Kirk

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 03/31/77
MO DA YR

PERMIT NUMBER- CE-73-1256

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 1

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

MAST JR, VERNON G
RT 3 BX 532
NEW HOLLAND PA 17557

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

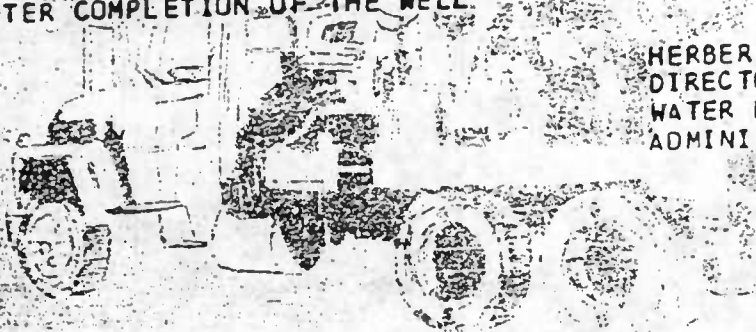
FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
09/28/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION



WRA COPY

8 1 6957
1 2 3 (SEQ. NO.) 5
(THIS NUMBER IS TO BE PUNCHED
IN COLUMNS 3-5 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED
(WRA USE ONLY)

OWNER Mast, Vernon G. Jr.
COL 15 LAST NAME
STREET OR RFD RT. 3 Box 532
COL 38
POST OFFICE New Holland, Pa. 17557
COL 57

73-1956

8-13
1 2 3 (SEQ. NO.) 5
CONTINUED

DRILLER INFORMATION

DATE 3-14-77 LICENSE NUMBER 159
FIRST NAME Vernon W. Kirk LAST NAME
SIGNATURE Vernon W. Kirk

8-12
1 2 3 (SEQ. NO.) 5
MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ F FARMING, AGRICULTURE, IRRIGATION
☐ I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
☐ M MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL
☐ P PRIVATE WATER COMPANY
☐ T TEST

APPROXIMATE DEPTH OF WELL 60 FEET
APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

- ☒ BORED (OR AUGERED) ☐ JETTED ☐ DRIVEN
☐ 30-37 AIR-ROTARY ☐ AIR-PERCUSSION ☐ ROTARY (HYDRAULIC ROTARY)
☒ CABLE ☐ REVERSE-ROTARY ☐ DRIVE-POINT
OTHER (DESCRIBE)

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

- ☒ N THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ D THIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

41 52

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER 54 ENGINEER REVIEW DISTRICT NO. 63
FORCE 67 WRITE INITIALS IN BOX 68 CONDITIONS 70 71 72 73 74 75 76 77 78 79

8-4
1 2 3 (SEQ. NO.) 5
CONTINUED
1 2 3 (SEQ. NO.) 5
DATE 03/28/77 HEALTH DEPARTMENT APPROVAL
COUNTY NAME Cecil COUNTY NO. 1080
APPROVED BY Wm. A. Sumner (P)

8-5
1 2 3 (SEQ. NO.) 5
SPECIAL CONDITIONS 6-63

8-3
1 2 3 (SEQ. NO.) 5
COUNTY Cecil
SUBDIVISION 22
SECTION 44
NEAREST TOWN Charles Town
MILES FROM TOWN 11
DIRECTION FROM TOWN
NORTH ☐ EAST ☐ SOUTH ☒ WEST ☐
NEAR WHAT ROAD Woodall Rd
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) S
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. DISTANCE FROM WELL TO NEAREST ROAD, LOCATION OF STREAM, CHURCH, ETC. SKETCH, ALSO SHOW, BY MEANS OF AN ARROW, THE WELL LOCATION IN THE SKETCH, AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

Sketch showing location of well in relation to roads and streams. The sketch includes a road labeled "Woodall Rd" and a stream labeled "Carpenter Pt. Rd". A well is located near the intersection of these roads. A north arrow points upwards. The sketch is labeled "Dead End" and "Septic SFL".

BOX NUMBER 1080
630

NORTH COORDINATE 635000
EAST COORDINATE 1080000
ELEVATION AT WELL HEAD (FEET) 65 66 67 68

ORIGINAL

C 1 4691
 1 2 3 (SEQ. NO.) 6
 (THIS NUMBER IS TO BE PUNCHED
 IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG. ANNAPOLIS, MD. 21401
 WELL COMPLETION REPORT

DATE RECEIVED
 (WTA USE ONLY)
 5-19-77
 DATE WELL COMPLETED
 05/19/77
 DEPTH OF WELL
 50
 73-1952

OWNER Mast Jr, Vernon C.
 LAST NAME
 STREET OR RFD RT 3 BX 532
 POST OFFICE New Holland, Pa.

WELL LOG
 STATE THE KIND OF FORMATIONS PENETRATED, THEIR
 COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM TO	CHECK IF WATER BEARING
Top soil	0 2	
sand & gravel	2 20	
white clay	20 40	
white sand	40 50 ✓	

GROUTING RECORD
 WELL HAS BEEN ABANDONED
 (CIRCLE APPROPRIATE BOX)
 TYPE OF SETTING MATERIAL (CIRCLE NO.)
 CEMENT ☒ M OTHER ☐
 NO. OF BAGS 4 NO. 14-25 BAG 376
 GALLONS OF WATER 24
 DEPTH OF GROUT SEAL TO NEAREST FOOT
 FROM 2 TO 20
 ENTERED C IF FROM T. SPACE

CASING RECORD
 Casing Types (CIRCLE)
 INSERT ☒ CONCRETE ☐
 APPROPRIATE CODE BELOW ☐ OTHER ☐
 MAIN CASING TYPE ☐ PLASTIC ☐
 NOMINAL DIAMETER FOR MAIN CASING (NEAREST INCH) 6
 TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 45

OTHER CASING (IF USED)
 DIAMETER (INCH) FROM TO
 DEPTH (FEET) FROM TO

SCREEN RECORD
 SCREEN TYPE OR OPEN HOLE
 INSERT APPROPRIATE CODE BELOW
 (CIRCLE) ☒ BRASS OPEN HOLE ☐
 PLASTIC ☐ OTHER ☐

DEPTH (NEAREST WHOLE FOOT)
 FROM TO
 1 5 2 45 3 50
 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
 SLOT SIZE 1. ✓ 2. ✓ 3. ✓

DIAMETER OF SCREEN 6 (NEAREST INCH)
 FROM TO
 GRAVEL PACK ☐
 IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX ☐

WHA USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 (E.P.O.S.)
 70 ☐ 71 ☐ 72 ☐
 TELESCOPE CASING ☐ LOG INDICATOR ☐
 74 75 76 OTHER DATA AVAILABLE

PUMPING TEST
 DATE OF TEST
 LOCATION OF TEST
 WATER LEVEL
 BEFORE PUMPING 5
 AFTER PUMPING 25
 TYPE OF PUMPED USED
 (CIRCLE) ☒ OTHER ☐
 PUMP HORSE POWER 2
 PUMP COLUMN LENGTH (NEAREST FOOT) 45
 CASING HEIGHT (CIRCLE) ☒ 30 FT ☐ 40 FT ☐ 50 FT ☐ 60 FT ☐ 70 FT ☐ 80 FT ☐ 90 FT ☐ 100 FT
 LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND IN OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANT MEASUREMENTS TO WELL.

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND IN OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANT MEASUREMENTS TO WELL.

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND IN OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANT MEASUREMENTS TO WELL.

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND IN OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANT MEASUREMENTS TO WELL.

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND IN OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANT MEASUREMENTS TO WELL.

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND IN OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANT MEASUREMENTS TO WELL.

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND IN OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANT MEASUREMENTS TO WELL.

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND IN OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANT MEASUREMENTS TO WELL.

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS HOUSE, SEPTIC TANKS, AND IN OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANT MEASUREMENTS TO WELL.

CIRCLE APPROPRIATE BOXES
☒ A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
☐ B ELECTRIC LOG OBTAINED
☐ C TEST WELL CONVERTED TO PRODUCTION WELL
 I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL" AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.
 DRILLER'S NAME
 (PLEASE PRINT) Vernon W. Kirk
 SIGNATURE Vernon W. Kirk

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

1957

ISSUE DATE- 03/31/77
MO DA YR

PERMIT NUMBER- CE-73-1957

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 1000

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

BRITTINGHAM, THOMAS

CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
09/28/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

WRA COPY

6958
1 2 3 (SEQ. NO.)
THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-5 ON ALL CARDS

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403
APPLICATION FOR PERMIT TO DRILL WELL

73-1957

DATE RECEIVED (WRA USE ONLY)
OWNER Brittingham Thomas
STREET OR RFO Charles town
POST OFFICE md

DRILLER INFORMATION
B 1 CONTINUED
DATE 3-14-77 LICENSE NUMBER 159
FIRST NAME Vernon LAST NAME Kirk
SIGNATURE Vernon W. Kirk

WELL INFORMATION
B 2
MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300
USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
☐ TEST
MUST HAVE STATE HEALTH DEPT. APPROVAL

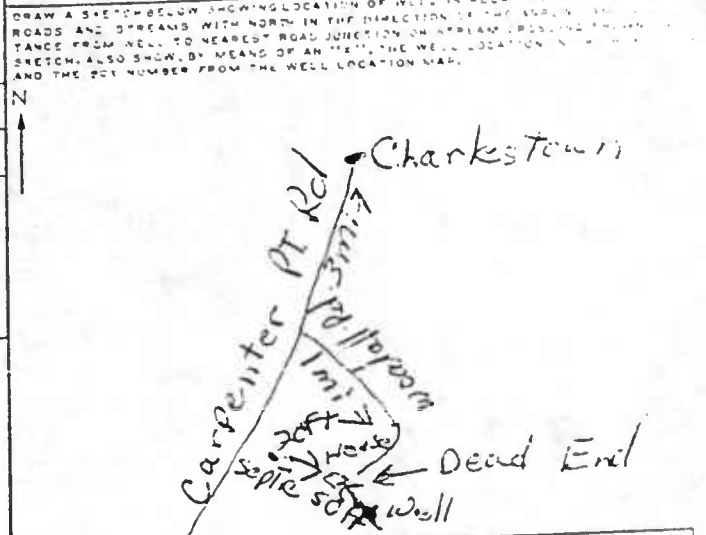
APPROXIMATE DEPTH OF WELL 70 FEET
APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)
METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
BORED (OR AUGERED) JETTED DRIVEN
AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
REVERSE-ROTARY ORIVE-POINT
OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☒ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)
APPROPRIATION PERMIT NUMBER
ENGINEER REVIEW DISTRICT NO.
FORCE
CONDITIONS
WRITE INITIALS IN BOX

HEALTH DEPARTMENT APPROVAL
B 4 CONTINUED
DATE 032877
STATE HEALTH (CIRCLE BOX)
COUNTY NAME Cecil COUNTY NO.
APPROVED BY Wm. A. Sumner (P)

LOCATION OF WELL
B 3
COUNTY Cecil
SECTION 4
NEAREST TOWN Charles town
MILES FROM TOWN 4
DIRECTION FROM TOWN
NEAR WHAT ROAD Woodall Rd.
ON WHICH SIDE OF ROAD N
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 40



BOX NUMBER
NORTH COORDINATE 1080
EAST COORDINATE 630
ELEVATION AT WELL HEAD (FEET) 635000
ELEVATION AT WELL HEAD (FEET) 1080000

SPECIAL CONDITIONS B-63 (WRA USE ONLY)
B 5 CONTINUED
DATE 032877

ORIGINAL

C 1 4692

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS MD. 21401
WELL COMPLETION REPORT1 2 3 (SEQ. NO.)
(THIS NUMBER IS TO BE PUNCHED
IN COLD, 3-5 ON ALL CARDS)DATE RECEIVED
(WRA USE ONLY)5-24-77
DATE WELL COMPLETED

DEPTH OF WELL

90

22 170 NEAREST FOOT 26

062177

0524177

OWNER Brittingham, Thomas73-1957
Charles Town, Md.

STREET OR RFD

WELL DESCRIPTION

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING
DESCRIPTION (USE ADDITIONAL SHEETS
IF NECESSARY)

DESCRIPTION	FEET	FEET
	FROM	TO
Top soil	0	2
sand & gravel	2	20
white clay & sand	20	50
blue clay	50	80
white sand	80	90 ✓

GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

KIND OF GROUTING MATERIAL (CIRCLE APPROPRIATE BOX)

CEMENT

BENTONITE CLAY

NO. OF BAGS 5 NO. OF POUNDS 470GALLONS OF WATER 30

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 2 FT. TO 20 FT.

ENTER 0 IF FROM SURFACE

CASING RECORD

CASING TYPES
(INSERT
APPROPRIATE
CODE
BELOW)

ST

CO

PL

OT

MAIN
CASING
TYPENOMINAL DIAMETER
TOP (MAIN) CASING
(NEAREST INCH)TOTAL DEPTH
OF MAIN CASING
(NEAREST FOOT)

ST

6

85

OTHER CASING (IF USED)

DIAMETER
(INCH)DEPTH (FEET)
FROM TO

EACH CASING	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
1			
2			

SCREEN RECORD

SCREEN TYPE
OR OPEN HOLE(INSERT
APPROPRIATE
CODE
BELOW)

ST

BR

MO

BRASS
OR BRONZE

OPEN HOLE

PL

OT

PLASTIC

OTHER

C 2

(SEQ. NO.) 6

DEPTH (NEAREST WHOLE FOOT)

EACH SCREEN	FROM	TO
1	ST 85	90
2		
3		

SLOT SIZE 1. 1/2 2. 3/4 3. 1DIAMETER OF SCREEN 6 (NEAREST INCH)
FROM TO

GRAVEL PACK

IF WELL DRILLED WAS A
FLOWING WELL CIRCLE BOX 68 FWRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)
(E.R.D.S.) W D

70

72

74 75 76

TELESCOPE
CASINGLOG
INDICATOROTHER DATA
AVAILABLE

CIRCLE APPROPRIATE BOXES

☒ A WELL WAS ABANDONED AND SEALED WHEN THIS
WELL WAS COMPLETED☐ E ELECTRIC LOG OBTAINED☐ P TEST WELL CONVERTED TO PRODUCTION WELLI HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL
CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT
TO DRILL WELL" AND THAT INFORMATION CONTAINED
IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE
TO THE BEST OF MY KNOWLEDGE, INFORMATION AND
BELIEF.

DRILLER'S NAME

(PLEASE PRINT) Vernon W. KirkSIGNATURE Vernon W. Kirk

ORIGINAL

PUMPING TEST

PUMPING RATE

WATER LEVEL (DURING PUMPING)

WATER LEVEL (BEFORE PUMPING)

WATER LEVEL (AFTER PUMPING)

WATER LEVEL (AFTER PUMPING)

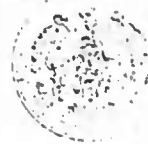
WATER LEVEL (AFTER PUMPING)

TYPE OF PUMP USED

(FOR PUMPING TEST)

☐ A AIR☐ B CENTRIFUGAL☐ C CENTRIFUGAL☐ D CENTRIFUGAL☐ E CENTRIFUGAL☐ F CENTRIFUGAL☐ G CENTRIFUGAL☐ H CENTRIFUGAL☐ I CENTRIFUGAL☐ J CENTRIFUGAL☐ K CENTRIFUGAL☐ L CENTRIFUGAL☐ M CENTRIFUGAL☐ N CENTRIFUGAL☐ O CENTRIFUGAL☐ P CENTRIFUGAL☐ Q CENTRIFUGAL☐ R CENTRIFUGAL☐ S CENTRIFUGAL☐ T CENTRIFUGAL☐ U CENTRIFUGAL☐ V CENTRIFUGAL☐ W CENTRIFUGAL☐ X CENTRIFUGAL☐ Y CENTRIFUGAL☐ Z CENTRIFUGAL☐ AA CENTRIFUGAL☐ AB CENTRIFUGAL☐ AC CENTRIFUGAL☐ AD CENTRIFUGAL☐ AE CENTRIFUGAL☐ AF CENTRIFUGAL☐ AG CENTRIFUGAL☐ AH CENTRIFUGAL☐ AI CENTRIFUGAL☐ AJ CENTRIFUGAL☐ AK CENTRIFUGAL☐ AL CENTRIFUGAL☐ AM CENTRIFUGAL☐ AN CENTRIFUGAL☐ AO CENTRIFUGAL☐ AP CENTRIFUGAL☐ AQ CENTRIFUGAL☐ AR CENTRIFUGAL☐ AS CENTRIFUGAL☐ AT CENTRIFUGAL☐ AU CENTRIFUGAL☐ AV CENTRIFUGAL☐ AW CENTRIFUGAL☐ AX CENTRIFUGAL☐ AY CENTRIFUGAL☐ AZ CENTRIFUGAL☐ BA CENTRIFUGAL☐ BB CENTRIFUGAL☐ BC CENTRIFUGAL☐ BD CENTRIFUGAL☐ BE CENTRIFUGAL☐ BF CENTRIFUGAL☐ BG CENTRIFUGAL☐ BH CENTRIFUGAL☐ BI CENTRIFUGAL☐ BJ CENTRIFUGAL☐ BK CENTRIFUGAL☐ BL CENTRIFUGAL☐ BM CENTRIFUGAL☐ BN CENTRIFUGAL☐ BO CENTRIFUGAL☐ BP CENTRIFUGAL☐ BQ CENTRIFUGAL☐ BR CENTRIFUGAL☐ BS CENTRIFUGAL☐ BT CENTRIFUGAL☐ BU CENTRIFUGAL☐ BV CENTRIFUGAL☐ BW CENTRIFUGAL☐ BX CENTRIFUGAL☐ BY CENTRIFUGAL☐ BZ CENTRIFUGAL☐ CA CENTRIFUGAL☐ CB CENTRIFUGAL☐ CC CENTRIFUGAL☐ CD CENTRIFUGAL☐ CE CENTRIFUGAL☐ CF CENTRIFUGAL☐ CG CENTRIFUGAL☐ CH CENTRIFUGAL☐ CI CENTRIFUGAL☐ CJ CENTRIFUGAL☐ CK CENTRIFUGAL☐ CL CENTRIFUGAL☐ CM CENTRIFUGAL☐ CN CENTRIFUGAL☐ CO CENTRIFUGAL☐ CP CENTRIFUGAL☐ CQ CENTRIFUGAL☐ CR CENTRIFUGAL☐ CS CENTRIFUGAL☐ CT CENTRIFUGAL☐ CU CENTRIFUGAL☐ CV CENTRIFUGAL☐ CW CENTRIFUGAL☐ CX CENTRIFUGAL☐ CY CENTRIFUGAL☐ CZ CENTRIFUGAL☐ DA CENTRIFUGAL☐ DB CENTRIFUGAL☐ DC CENTRIFUGAL☐ DD CENTRIFUGAL☐ DE CENTRIFUGAL☐ DF CENTRIFUGAL☐ DG CENTRIFUGAL☐ DH CENTRIFUGAL☐ DI CENTRIFUGAL☐ DJ CENTRIFUGAL☐ DK CENTRIFUGAL☐ DL CENTRIFUGAL☐ DM CENTRIFUGAL☐ DN CENTRIFUGAL☐ DO CENTRIFUGAL☐ DP CENTRIFUGAL☐ DQ CENTRIFUGAL☐ DR CENTRIFUGAL☐ DS CENTRIFUGAL☐ DT CENTRIFUGAL☐ DU CENTRIFUGAL☐ DV CENTRIFUGAL☐ DW CENTRIFUGAL☐ DX CENTRIFUGAL☐ DY CENTRIFUGAL☐ DZ CENTRIFUGAL☐ EA CENTRIFUGAL☐ EB CENTRIFUGAL☐ EC CENTRIFUGAL☐ ED CENTRIFUGAL☐ EE CENTRIFUGAL☐ EF CENTRIFUGAL☐ EG CENTRIFUGAL☐ EH CENTRIFUGAL☐ EI CENTRIFUGAL☐ EJ CENTRIFUGAL☐ EK CENTRIFUGAL☐ EL CENTRIFUGAL☐ EM CENTRIFUGAL☐ EN CENTRIFUGAL☐ EO CENTRIFUGAL☐ EP CENTRIFUGAL☐ EQ CENTRIFUGAL☐ ER CENTRIFUGAL☐ ES CENTRIFUGAL☐ ET CENTRIFUGAL☐ EU CENTRIFUGAL☐ EV CENTRIFUGAL☐ EW CENTRIFUGAL☐ EX CENTRIFUGAL☐ EY CENTRIFUGAL☐ EZ CENTRIFUGAL☐ FA CENTRIFUGAL☐ FB CENTRIFUGAL☐ FC CENTRIFUGAL☐ FD CENTRIFUGAL☐ FE CENTRIFUGAL☐ FF CENTRIFUGAL☐ FG CENTRIFUGAL☐ FH CENTRIFUGAL☐ FI CENTRIFUGAL☐ FJ CENTRIFUGAL☐ FK CENTRIFUGAL☐ FL CENTRIFUGAL☐ FM CENTRIFUGAL☐ FN CENTRIFUGAL☐ FO CENTRIFUGAL☐ FP CENTRIFUGAL☐ FQ CENTRIFUGAL☐ FR CENTRIFUGAL☐ FS CENTRIFUGAL☐ FT CENTRIFUGAL☐ FU CENTRIFUGAL☐ FV CENTRIFUGAL☐ FW CENTRIFUGAL☐ FX CENTRIFUGAL☐ FY CENTRIFUGAL☐ FZ CENTRIFUGAL☐ GA CENTRIFUGAL☐ GB CENTRIFUGAL☐ GC CENTRIFUGAL☐ GD CENTRIFUGAL☐ GE CENTRIFUGAL☐ GF CENTRIFUGAL☐ GG CENTRIFUGAL☐ GH CENTRIFUGAL☐ GI CENTRIFUGAL☐ GJ CENTRIFUGAL☐ GK CENTRIFUGAL☐ GL CENTRIFUGAL☐ GM CENTRIFUGAL☐ GN CENTRIFUGAL☐ GO CENTRIFUGAL☐ GP CENTR

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 05/04/77
MO DA YR

PERMIT NUMBER- CE-73-1996

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 10

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

MCVEY, GEORGE B
2639 LONGFELLOW
WILMINGTON DE 19808

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

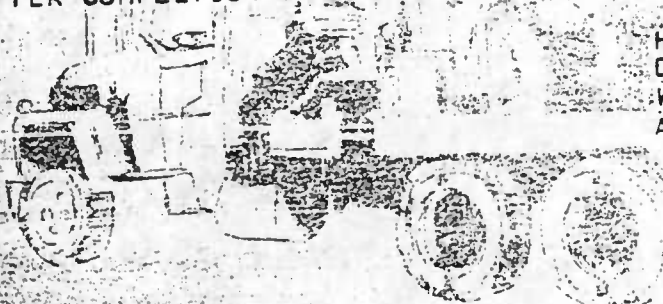
SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
11/04/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL



HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

0035

(WRA USE ONLY)

WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

FILL IN THIS SECTION

73-1996

1 2 3 (SEC. NO.) 6
(THIS NUMBER IS TO BE PUNCHED
IN COLUMNS 3-6 ON ALL CARDS)DATE RECEIVED
(WRA USE ONLY)OWNER Mr. Vey, George
COL 13 LAST NAMESTREET OR RFD 2639 Langfellow
COL 36POST OFFICE Wilmington De 19803
COL 57

B-13

B 1 CONTINUED

DRILLER INFORMATION

1 2 3 (SEC. NO.) 6

DATE 4-25-77 LICENSE NUMBER 159
COL 77 COL 80FIRST NAME Vernon ORILLER W. Kirk LAST NAME
SIGNATURE Vernon W. Kirk

WELL INFORMATION

B 2 CONTINUED

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300
COL 12 COL 24

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
☐ MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL
☐ PRIVATE WATER COMPANY
☐ TEST

APPROXIMATE DEPTH OF WELL 100 FEET
COL 24 COL 28APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

- ☒ BORED (OR AUGERED) ☐ JETTED ☐ DRIVEN
☐ AIR-ROTARY ☐ AIR-PERCUSSION ☐ ROTARY (HYDRAULIC ROTARY)
☒ CABLE ☐ REVERSE-ROTARY ☐ DRIVE-POINT
OTHER (DESCRIBE) _____

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEIN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) _____

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER 1080 ENGINEER REVIEW DISTRICT NO. 636
COL 84 COL 85
FENCE WHITE INITIALS U CONDITIONS U
COL 87 COL 88 COL 70 COL 71 COL 72 COL 73 COL 74 COL 75 COL 76 COL 77 COL 78 COL 79

HEALTH DEPARTMENT APPROVAL

B 4 CONTINUED
1 2 3 (SEC. NO.) 6
DATE 050377 STATE HEALTH (CIRCLE BOX) Cecil COUNTY NAME Wm. A. Sumner COUNTY NO. (P)
COL 41 COL 42 COL 43 COL 44 COL 45 COL 46 COL 47 COL 48 COL 49

B 3 CONTINUED

1 2 3 (SEC. NO.) 6

COUNTY CecilSUBDIVISION 22SECTION 46NEAREST TOWN Charles TownMILES FROM TOWN CENTER 2

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST S SOUTH SW SOUTHWEST W WEST NW NORTHWEST

NEAR WHAT ROAD Woodall StON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) 15DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 100

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE APPROXIMATE DIRECTION FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE SKETCH AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N

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ORIGINAL

C 1 2508

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

1 2 3 (SEQ. NO.) 6
THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-5 ON ALL CARDS

DATE RECEIVED
(MRA USE ONLY)

7-18-77
DATE WELL COMPLETED

DEPTH OF WELL

70

8-8-77 9-13

0718177

OWNER McVey, George B.
LAST NAME FIRST NAME
STREET OR RFD 2639 Longfellow

731896
POST OFFICE Wilmington, Del.

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION
(USE ADDITIONAL SHEETS
IF NECESSARY)

FEET
FROM TO

CHECK IF
WATER
BEARING

Top soil 0 2
Brown sand-gravell 2 20
Red clay 20 40
white clay 40 50
blue clay 50 60
white sand 60 70 ✓

WELL DESCRIPTION

GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE ONE)
CEMENT ☒ CM OTHER ☐ SO

NO. OF BAGS 4 NO. OF FEET 376

GALLONS OF WATER 24

DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 2 TO 15

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES
(INSERT APPROPRIATE CODE BELOW)
☒ ST ☐ CO
☐ PL ☐ OT

MAIN CASING TYPE ☒ ST
NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH) 6
TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 65

OTHER CASING (IF USED)
DIAMETER (INCH) DEPTH (FEET)
FROM TO

SCREEN TYPE OF OPEN HOLE
(INSERT APPROPRIATE CODE BELOW)
☒ ST ☐ BR ☐ MO
☐ PL ☐ OT

C 2
1 2 3 (SEQ. NO.) 6
DEPTH (NEAREST WHOLE FOOT)
FROM TO
1 ☒ ST 65 70
2 ☐ ☐ ☐ ☐ ☐ ☐
3 ☐ ☐ ☐ ☐ ☐ ☐
SLOTSIZE 1. 6 2. 1 3. 3

DIAMETER OF SCREEN 6 (NEAREST INCH)
FROM TO

GRAVEL PACK ☐ ☐ ☐

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX ☐ ☐ ☐

MRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)
(E.P.D.S.)

TELESCOPE CASING ☐ ☐ ☐

LOG INDICATOR ☐ ☐ ☐

C 3

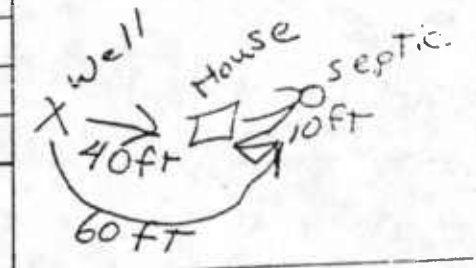
PUMPING TEST

NO. 1. NAME OF PUMP 2
PUMPING RATE 10
METHOD OF MEASUREMENT Water
WATER LEVEL 110
REFRESH PUMPING 50
WHEN PUMPING 22
TYPE OF PUMP USED Water
IF OF PUMPING TEST
☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE BOX - SEE ABOVE)
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON) 3
PUMP HORSE POWER 3
PUMP COLUMN LENGTH (NEAREST FOOT) 42
CASING HEIGHT (CIRCLE APPROPRIATE AND ENTER ON WASH LOG)
☒ ABOVE ☐ BELOW

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE, SEPTIC TANKS, AND/OR OTHER LAND MARKS
INDICATE NOT LESS THAN 100 FEET MEASUREMENTS TO WELL



CIRCLE APPROPRIATE BOXES

☐ A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
☐ E ELECTRIC LOG OBTAINED
☐ P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL
CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT
TO DRILL WELL", AND THAT INFORMATION CONTAINED
IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE
TO THE BEST OF MY KNOWLEDGE, INFORMATION AND
BELIEF.

DRILLER'S NAME

PLEASE PRINT Vernon W. Kirk

SIGNATURE Vernon W. Kirk

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND

PERMIT TO DRILL WELL

ISSUE DATE- 06/10/77
MO DA YR

2063
PERMIT NUMBER- CE-73-2063

ISSUED TO DRILLER-

PRESTON & HAMILTON
115 N PARADISE
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 11

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

GIRALDI, ROBERT T
RD 1
PERRYVILLE MD 21903

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERPYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
12/10/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION



WRA COPY

7127
1 2 3 (SEQ. NO.) 5
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-5 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403
APPLICATION FOR PERMIT TO DRILL WELL

Robert J. [unclear]

DATE RECEIVED
(WRA USE ONLY)

061077

OWNER COL 12 LAST NAME Gibaldi

STREET OR RFD COL 38 RD 1

POST OFFICE COL 57 Perryville, Md. 21903

642-6234

73-2063

LOCATION OF WELL

DRILLER INFORMATION

1 2 3 (SEQ. NO.) 5
CONTINUED

DATE 5-2-77 LICENSE NUMBER 112

Charles H. Hamilton, Jr.

SIGNATURE Charles H. Hamilton, Jr.

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 1000
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
☐ TEST
- MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

☒ BORED (OR AUGERED) ☐ JETTED ☐ DRIVEN
☐ 30-37 AIR-ROTARY ☐ AIR-PERCUSSION ☒ ROTARY (HYDRAULIC ROTARY)
☐ CABLE ☐ REVERSE-ROTARY ☐ DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEIN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER 34 ENGINEER REVIEW DISTRICT NO. 63
FORCE 67 WRITE INITIALS IN BOX U CONDITIONS 70 71 72 73 74 75 76 77 78 79

HEALTH DEPARTMENT APPROVAL

1 2 3 (SEQ. NO.) 5
STATE HEALTH CIRCLE BOX Cecil COUNTY NO. 63
MD. DAY YR. 0610977
DATE 0610977 APPROVED BY Wm. A. Sumner

SPECIAL CONDITIONS 6-63

1 2 3 (SEQ. NO.) 5
COUNTY Cecil

SUBDIVISION 22

SECTION 44

NEAREST TOWN Perryville

MILES FROM TOWN CENTER 3

DIRECTION FROM TOWN North

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) North

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 34

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. INDICATE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. DRAW IN SKETCH, ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE NEIGHBORHOOD AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

Jackson Station Rd.
@ well site

BOX NUMBER 1070
630

NORTH COORDINATE 635000
50 51 52 53 54 55

EAST COORDINATE 1070000
57 58 59 60 61 62 63

ELEVATION AT WELL HEAD (FEET) 65 66 67 68

ORIGINAL

SEQUENCE NO. (WRA USE ONLY)
 C 1 2880
 1 2 3 (SEQ. NO.)
 (THIS NUMBER IS TO BE PUNCHED IN EOLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
 WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY)
 APR 27 1978
 DATE WELL COMPLETED
 1/31/78
 01/31/78

DEPTH OF WELL
 144
 25 170 NEAREST FOOT 25

OWNER
 LAST NAME
 STREET OR RFD
 POST OFFICE

WELL LOG
 STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING
 DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)

clay
 0 24
 24 144 -

GROUTING RECORD
 WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
 YES ☒ NO ☐
 TYPE OF GROUTING MATERIAL (CIRCLE APPROPRIATE BOX)
 CEMENT ☒ PORTLAND CEMENT ☐
 NO. OF BAGS 2 NO. OF POUNDS 200
 GALLONS OF WATER 10
 DEPTH OF GROUT SEAL (TO NEAREST FOOT)
 FROM 0 FT. TO 20 FT.
 (ENTER 0 IF FROM SURFACE)

CASING RECORD
 Casing Types
 INSERT APPROPRIATE CODE BELOW
 STEEL ☒ CONCRETE ☐
 PLASTIC ☐ OTHER ☐
 MAIN CASING TYPE ☒ 6 25
 NOMINAL DIAMETER TOP (MAIN CASING) (NEAREST INCH)
 TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)

OTHER CASING (IF USED)
 DIAMETER (INCH) DEPTH (FEET)
 FROM TO

SCREEN RECORD
 SCREEN TYPE OR OPEN HOLE
 INSERT APPROPRIATE CODE BELOW
 STEEL ☒ BRASS OR BRONZE ☐ OPEN HOLE ☐
 PLASTIC ☐ OTHER ☐

DEPTH (NEAREST WHOLE FOOT)
 FROM 140 TO 144
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DIAMETER OF SCREEN (NEAREST INCH)
 FROM 30 TO 50
 GRAVEL PACK
 IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX ☐

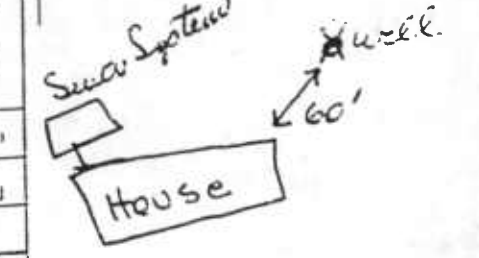
WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 LOG INDICATOR
 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

PUMPING TEST
 PUMPING RATE
 GALLONS PER MINUTE TO NEAREST GALLON
 WATER LEVEL
 BEFORE PUMPING
 AFTER PUMPING
 TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)
 A AIR ☐ B MOUNTAIN ☐
 C CENTRIFUGAL ☐ D ROTARY ☐
 J JET ☐ S SUBMER ☐

PUMP INSTALLED
 TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE)
 CAPACITY
 GALLONS PER MINUTE TO NEAREST GALLON
 PUMP HORSE POWER
 PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT
 (+) ABOVE
 (-) BELOW
 LAND SURFACE
 AND ENTER CASING HEIGHT

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANT MEASUREMENTS TO WELL.



CIRCLE APPROPRIATE BOXES
 A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
 E ELECTRIC LOG OBTAINED
 P TEST WELL CONVERTED TO PRODUCTION WELL
 I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.
 DRILLER'S NAME
 CHAS. HAMILTON, JR.
 SIGNATURE
 Charles H. Hamilton

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

73-2089

ISSUE DATE- 06/23/77
- MO DA YR

PERMIT NUMBER- CF-73-2089

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER--

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

TODT, PAUL F
RT 1 BX 279
LEESPORT PA

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

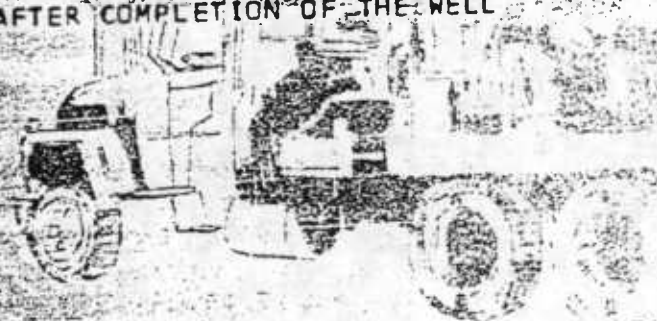
THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM
THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
12/23/77. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL



HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

B 1	7008	SEQUENCE NO. (WRA USE ONLY)
1	2	3 (SEQ. NO.)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-5 ON ALL CARDS)		

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE 5LDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-70-2089
FILED IN THE RECORDS OF THE

DATE RECEIVED
(WRA USE ONLY)

062877

OWNER Todd, Paul F.
COL 15 LAST NAMESTREET OR RFD RT #1 Box 279
COL 36POST OFFICE Leesport, Penna. ~~PA 15332~~
COL 57

77-2089

B 1 CONTINUED DRILLER INFORMATION

DATE 6-15-77 LICENSE NUMBER 159
COL 77 COL 80FIRST NAME Vernon W. Kirk DRILLER LAST NAMESIGNATURE Vernon W. Kirk

B 2 WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ FARMING, AGRICULTURE, IRRIGATION

☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.

☐ MUNICIPAL WATER SUPPLY } MUST HAVE STATE HEALTH DEPT. APPROVAL

☐ PRIVATE WATER COMPANY }

☐ TEST

APPROXIMATE DEPTH OF WELL 90 FEETAPPROXIMATE DIAMETER OF WELL 6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

☒ BORED (OR AUGERED) ☐ JETTED ☐ DRIVEN

☐ AIR-ROTARY ☐ AIR-PERCUSSION ☐ ROTARY (HYDRAULIC ROTARY)

☒ CABLE ☐ REVERSE-ROTARY ☐ DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL

☒ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

☐ THIS WELL WILL DEEPEIN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER 54 ENGINEER REVIEW DISTRICT NO. 63

FORCE ☐ WRITE INITIALS IN BOX CONDITIONS 70 71 72 73 74 75 76 77 78 79

B 4 CONTINUED HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME Ym. A. Summer COUNTY NO.

DATE 062277 APPROVED BY

B 5 SPECIAL CONDITIONS 8-63

B 3 LOCATION OF WELL

COUNTY CecilSUBDIVISION 23SECTION 44NEAREST TOWN Charles TownMILES FROM TOWN ENTER IN ROW 4

DIRECTION FROM TOWN

NEAR WHAT ROAD Woodall Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

☒ NORTH ☐ EAST ☐ NORTH-EAST

☒ SOUTH ☐ WEST ☐ SOUTH-WEST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL, NEAREST ROAD, STREAMS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ROAD. SHOW DISTANCE FROM WELL TO NEAREST ROAD AND DISTANCE FROM WELL TO NEAREST STREAM. SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE DIRECTION OF THE ROAD AND THE ROAD NUMBER FROM THE WELL LOCATION MAP.

Sketch showing location of well, nearest road, streams and streams with north in the direction of the road. Show distance from well to nearest road and distance from well to nearest stream. Sketch also show, by means of an "X", the well location in the direction of the road and the road number from the well location map.

Charles Town

Woodall Rd.

Capen Rd.

1500 ft. to Septic

1500 ft. to House

1500 ft. to Well

BOX NUMBER 1080

630

NORTH COORDINATE 638000

EAST COORDINATE 1080000

ELEVATION AT WELL HEAD (FEET) 60 61 62 63

C 1 2219
 1 2 3 (SEQ. NO.) 4
 (THIS NUMBER IS TO BE HUNCHED
 IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
 WELL COMPLETION REPORT

FILL IN THIS FORM

COUNTY
NUMBER

2089

DATE RECEIVED
(WRA USE ONLY)

102677

10-14-77
DATE WELL COMPLETED

DEPTH OF WELL

90

22 170 NEAREST FOOT 28

DRILLER'S IDENTIFICATION NO. 154

OWNER

TadT Paul F

STREET OR RFD

RT 1 BX 279

POST OFFICE

LEESFORD, Pa.

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, ORPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM TO	CHECK IF WATER BEARING
Top soil	0 2	
Brown sand & gravel	2 30	
red clay	30 50	
white clay & sand	50 75	
Blue clay	75 80	
white sand	80 90 ✓	

WELL DESCRIPTION

GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT (C M) BENTONITE CLAY

NO. OF BAGS 5 NO. OF POUNDS 470

GALLONS OF WATER 30

DEPTH OF GROUT SEAL (10 NEAREST FOOT)

FROM 2 FT. TO 25 FT.
(ENTER 0 IF FROM SURFACE)CASING TYPES
(INSERT APPROPRIATE CODE BELOW)

CASING RECORD

(S 1)

(C O)

(P L)

(O T)

MAIN CASING TYPE

NOMINAL DIAMETER
OF MAIN CASING
(NEAREST INCH)TOTAL DEPTH
OF MAIN CASING
(NEAREST FOOT)

S T 6 85

OTHER CASING (IF USED)

DIAMETER (INCH)

DEPTH (FEET)

FROM TO

SCREEN TYPE
(INSERT APPROPRIATE CODE BELOW)

SCREEN RECORD

(S T)

(B R)

(H O)

(P L)

(O T)

SCREEN TYPE
(INSERT APPROPRIATE CODE BELOW)

STEEL

BRASS

ON BROWSE

PLASTIC

OTHER

C 2

(SEQ. NO.) 6

DEPTH (NEAREST WHOLE FOOT)

S T 85 90

23 24 26 30 32 36

38 39 41 45 47 51

SLOT SIZE 1. 2. 3.

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK

IF WELL DRILLED WAS A
FLOWING WELL CIRCLE BOX

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

(C.M.D.S.)

70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

TELESCOPE CASING LOG INDICATOR

7A 7B 7C 7D 7E 7F 7G 7H 7I 7J 7K 7L 7M 7N 7O 7P 7Q 7R 7S 7T 7U 7V 7W 7X 7Y 7Z

C 3

PUMPING TEST

WELL PUMPED (10 NEAREST FOOT)

WATER BEARING

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING

AFTER PUMPING

TYPE OF PUMPED USED (CIRCLE BOX)

(A) AIR (B) PISTON (C) CENTRIFUGAL (D) ROTARY (E) SUBMERGIBLE

PUMP INSTALLED

TYPE OF PUMP (CIRCLE APPROPRIATE BOX)

BOX - SEE ABOVE

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (10 NEAREST GALLON)

NUM. HORSE POWER

NUM. COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX)

(A) ABOVE (B) BELOW

LAND SURFACE

NEAREST FOOT

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BLDG., SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DIMENSIONAL MEASUREMENTS TO WELL.

SOFT
 70 SEPT. 10
 71 SEPT. 10
 72 SEPT. 10
 73 SEPT. 10
 74 SEPT. 10
 75 SEPT. 10
 76 SEPT. 10
 77 SEPT. 10
 78 SEPT. 10
 79 SEPT. 10
 80 SEPT. 10
 81 SEPT. 10
 82 SEPT. 10
 83 SEPT. 10
 84 SEPT. 10
 85 SEPT. 10
 86 SEPT. 10
 87 SEPT. 10
 88 SEPT. 10
 89 SEPT. 10
 90 SEPT. 10
 91 SEPT. 10
 92 SEPT. 10
 93 SEPT. 10
 94 SEPT. 10
 95 SEPT. 10
 96 SEPT. 10
 97 SEPT. 10
 98 SEPT. 10
 99 SEPT. 10
 100 SEPT. 10

CIRCLE APPROPRIATE BOXES

(A) WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

(E) ELECTRIC LOG OBTAINED

(P) TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL
CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT
TO DRILL WELL", AND THAT INFORMATION CONTAINED
IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE
TO THE BEST OF MY KNOWLEDGE, INFORMATION AND
BELIEF.

DRILLER'S NAME

(PLEASE PRINT) Vernon Kirk

SIGNATURE: Vernon Kirk

ORIGINAL

B 1 7006

1 2 3 (SEQ. NO.) 6
THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-5 ON ALL CARDSSTATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

73-2163

DATE RECEIVED
(WHA USE ONLY)

080577

OWNER

~~James B. Melrath~~ MELRATH, Kay

COL 15 LAST NAME

STREET
OR RFD

2626 Whitman

COL 36

POST
OFFICE

Wilmington, Del.

COL 57

DRILLER INFORMATION

B 1 CONTINUED

1 2 3 (SEQ. NO.) 5

DATE 8-3-77

LICENSE

NUMBER 37

159

FIRST NAME

Vernon W. Kirk

DRILLER

LAST NAME

SIGNATURE

Vernon W. Kirk

WELL INFORMATION

B 2

1 2 3 (SEQ. NO.) 0

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

360

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)☐ FARMING, AGRICULTURE, IRRIGATION☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.☐ MUNICIPAL WATER SUPPLY☐ PRIVATE WATER COMPANY☐ TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL

80

FEET

APPROXIMATE DIAMETER OF WELL

(NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

☒ BORED (OR AUGERED)☐ JETTED☐ DRIVEN

30-37 AIR-ROTARY

AIR-PERCUSSION

ROTARY (HYDRAULIC ROTARY)

☒ CABLE

REVERSE-ROTARY

DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY☐ THIS WELL WILL DEEPMEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WHA USE ONLY)

APPROPRIATION

PERMIT NUMBER

ENGINEER REVIEW

DISTRICT NO.

FORCE

WRITE

INITIALS

IN BOX

CONDITIONS

70 71 72 73 74 75 76 77 78 79

B 4 CONTINUED

1 2 3 (SEQ. NO.) 0

STATE HEALTH

(CIRCLE BOX)

DATE

08 04 77

HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

COUNTY NO.

APPROVED BY

Jm. D. Summer

(WHA USE ONLY)

ORIGINAL

B 3

1 2 3 (SEQ. NO.) 0

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN

MILES FROM TOWN

DIRECTION FROM TOWN

1 2 3 (SEQ. NO.) 0

NORTH

EAST

SOUTH

WEST

NORTHWEST

SOUTHWEST

NEAR WHAT

ROAD

ON WHICH SIDE OF ROAD

(CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD

(ENTER DISTANCE AND CIRCLE

APPROPRIATE BOX)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST

ROADS AND STREAMS WITH NORTH ARROW AND DISTANCE FROM WELL TO NEAREST ROAD

DISTANCE FROM WELL TO NEAREST ROAD (ENTER DISTANCE AND CIRCLE

APPROPRIATE BOX)

SKETCH ALSO SHOW, BY MEANS OF AN ARROW, THE WELL LOCATION ON A MAP

AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N

Carpenters Pt. Rd.

3 1/2 mi. ->

Woodall Rd.

1/2 mi. ->

Dead End

House

22 ft. deep

X

Well

Woodall Rd.

1/2 mi. ->

Cecil

3 1/2 mi. ->

Charles Town

3 1/2 mi. ->

3 1/2 mi. ->

3 1/2 mi. ->

3 1/2 mi. ->

3 1/2 mi. ->

3 1/2 mi. ->

3 1/2 mi. ->

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3 1/2 mi. ->

3 1/2 mi. ->

3 1/2 mi. ->

EMERGENCY NO. (If any) -

B 1 8150

1 2 3 (SEQ. NO.) 0
(THIS NUMBER IS TO BE PUNCHED
IN COLD. 3-6 ON ALL EANDS)STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403
APPLICATION FOR PERMIT TO DRILL WELLCE-73-2168
FILL IN THIS SECTIONDATE RECEIVED
(WRA USE ONLY)

OWNER

COL 15 LAST NAME

VANSICKEL

HAROLD C

STREET
OR RFD

COL 30

RFD #1

Box 420

POST
OFFICE

COL 57

Perryville

Md. 21902

080977

B 7 CONTINUED

DRILLER INFORMATION

1 2 3 (SEQ. NO.) 5

DATE 8-2-77

LICENSE
NUMBER

250

CONSTANTINE DiFilippo

FIRST NAME

DRILLER

LAST NAME

SIGNATURE

Constantine DiFilippo

B 2

WELL INFORMATION

1 2 3 (SEQ. NO.) 0

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

8

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ D

HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ F

FARMING, AGRICULTURE, IRRIGATION

☐ I

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

☐ M

MUNICIPAL WATER SUPPLY

☐ P

PRIVATE WATER COMPANY

MUST HAVE STATE HEALTH DEPT. APPROVAL

☐ T

TEST

APPROXIMATE DEPTH OF WELL

150

FEET

APPROXIMATE DIAMETER OF WELL

6

(NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORE (OR AUGER)

JETTED

DRIVEN

30-37 AIR-ROTARY

☒ AIR-PERCUSSION

ROTARY (HYDRAULIC ROTARY)

CABLE

REVERSE-ROTARY

DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

☐ N

THIS WELL WILL NOT REPLACE AN EXISTING WELL

☐ Y

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

☒ S

THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

☐ DTHIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

41 52

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION
PERMIT NUMBER

34 63 65

ERBIRCEER REVIEW
DISTRICT NO.☐

FORCE

WRITE
INITIALS
IN BOX

CONDITIONS

A E N S G W O C L U

B 4

CONTINUED

HEALTH DEPARTMENT APPROVAL

1 2 3 (SEQ. NO.) 5

41

☒ SSTATE HEALTH
(CIRCLE BOX)

COUNTY NAME

COUNTY NO.

Cecil

Rm. A. Summer

DATE

080577

APPROVED BY

BOX
NUMBERE 1070
N 630NORTH
COORDINATE1635000
90 51 52 53 54 55EAST
COORDINATE11070050
57 58 59 60 61 62 63ELEVATION AT
WELL HEAD (FEET)

65 66 67 68

B 5

CONTINUED

SPECIAL CONDITIONS 8-62

(WRA USE ONLY)

1 2 3 (SEQ. NO.) 5

ORIGINAL

8517

SEQUENCE NO.

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS MD. 21401
WELL COMPLETION REPORT

THIS NUMBER IS TO BE PUNCHED
COLS. 3-6 ON ALL CAPS!

DEPTH OF WELL

244

2168

DATE RECEIVED
03 07 78

8/30/77

DATE WELL COMPLETED

08/30/77

OWNER Vansickel

R. F. D. 1 Box 420

Harold C.
Perryville, MD. 21902

STREET OR RFD

WELL DESCRIPTION

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET		CHECK IF WATER BEARING
	FROM	TO	
Topsoil	0	5	
Clay	5	40	
Sand & Gravel	40	70	
Clay	70	92	
Gray Granite	100	244	✓

Topsoil
Clay
Sand & Gravel
Clay
Gray Granite

0 5
5 40
40 70
70 92
100 244

GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

CEMENT ☒ M BENTONITE CLAY ☒ BC

NO. OF BAGS 12 NO. OF POUNDS 120

GALLONS OF WATER 72

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 0 FT. TO 80 FT.
(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES
(INSERT APPROPRIATE CODE BELOW)
☒ S1 CONCRETE
☐ PL PLASTIC
☐ O OTHER

MAIN CASING TYPE
☒ S ☐ T
NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH) 6
TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 106

OTHER CASING (IF USED)

DIAMETER (INCH) DEPTH (FEET)
FROM TO
☐ ☐ ☐ ☐
☐ ☐ ☐ ☐

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE
(INSERT APPROPRIATE CODE BELOW)
☒ ST STEEL
☐ BR BRASS OR BRONZE
☐ PL PLASTIC
☐ O OTHER

C 2

1 2 3 (SEQ. NO.) 6

DEPTH (NEAREST WHOLE FOOT) FROM TO

1 H O 106 244

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SLOT SIZE 1. 2. 3.

DIAMETER OF SCREEN (NEAREST INCH) FROM TO

GRAVEL PACK ☐ IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX ☐

WHA USE ONLY (NOT TO BE FILLED IN BY DRILLER)
(I.E. P.O.S.)

70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

TELESCOPE CASING LOG INDICATOR OTHER DATA AVAILABLE

C 3

PUMPING TEST

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING 80

AFTER PUMPING 244

TYPE OF PUMP USED (FOR PUMPING TEST)

☒ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H ☐ I ☐ J ☐ K ☐ L ☐ M ☐ N ☐ O ☐ P ☐ Q ☐ R ☐ S ☐ T ☐ U ☐ V ☐ W ☐ X ☐ Y ☐ Z

CIRCLE APPROPRIATE BOXES

- ☒ A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- ☐ E ELECTRIC LOG OBTAINED
- ☐ P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL
CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT
TO DRILL WELL", AND THAT INFORMATION CONTAINED
IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE
TO THE BEST OF MY KNOWLEDGE, INFORMATION AND
BELIEF.

DRILLER'S NAME

Constantine DiFilippo

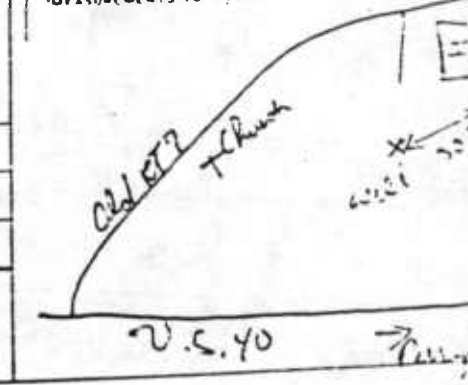
SIGNATURE

Constantine DiFilippo

ORIGINAL

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, DRIVE, FENCE, AND OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTINCT MEASUREMENTS TO WELL.



STATE OF MARYLAND

WATER RESOURCES ADMINISTRATION

TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403

APPLICATION FOR PERMIT TO DRILL WELL

CE-732272

0788

SEQUENCE NO.

(WRA USE ONLY)

1 2 3 (SEQ. NO.) 6
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)DATE RECEIVED
(WRA USE ONLY)

OWNER

ROGERSON

COL 15 LAST NAME

STREET
OR RFO

1112 Stone Wood Court

COL 36

POST
OFFICE

Wilmington, DE. 19810

COL 57

101877

8-13

B 1 CONTINUED

DRILLER INFORMATION

1 2 3 (SEQ. NO.) 8

DATE AUG. 23, 1977

LICENSE
NUMBER

250

CONSTANTINE DiFilippo

SIGNATURE Constantine DiFilippo

WELL INFORMATION

B 2

1 2 3 (SEQ. NO.) 8

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

800

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING, AGRICULTURE, IRRIGATION
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.
- ☐ MUNICIPAL WATER SUPPLY
- ☐ PRIVATE WATER COMPANY
- ☐ TEST
- MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL

100 FEET

APPROXIMATE DIAMETER OF WELL

6 (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

- ☒ BORED (OR AUGERED) ☒ JETTED ☐ DRIVEN
- ☐ AIR-ROTARY ☒ AIR-PERCUSSION ☐ ROTARY (HYDRAULIC ROTARY)
- ☐ CABLE ☐ REVERSE-ROTARY ☐ DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEMED AN EXISTING WELL
- PENMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER

ENGINEER REVIEW DISTRICT NO.

FORCE

WHITE INITIALS IN BOX

CONDITIONS

HEALTH DEPARTMENT APPROVAL

Cecil

Wm. A. Summer

B 4 CONTINUED

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 5

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 6

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 7

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 8

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 9

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 10

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 11

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 12

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 13

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 14

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 15

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 16

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 17

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 18

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 19

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 20

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 21

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 22

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 23

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 24

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 25

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 26

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 27

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 28

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 29

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 30

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 31

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 32

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 33

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 34

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 35

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 36

1 2 3 (SEQ. NO.) 8

DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

SPECIAL CONDITIONS 8-63

(WRA USE ONLY)

B 37

1 2 3 (SEQ. NO.) 8

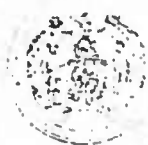
DATE HEALTH (CIRCLE BOX)

MO. DAY TH.

DATE 101077

APPROVED BY

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 10/19/77
MO DA YR

PERMIT NUMBER- CE-73-2286

ISSUED TO DRILLER-

DIFILIPPO, C JR
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

DRILLER
ID. NUMBER- 250

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

TRI STATE MOTOR TRAN
P O BX 188
RUBY SC

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF NORTH EAST

THE WATER IS TO BE USED FOR A COMMERCIAL/INDUSTRIAL SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. PROVIDE OPENING FOR TAPE MEASUREMENT OF WATER LEVELS (MIN. INSIDE DIAM. OF ONE-HALF INCH) SEALED BY REMOVABLE CAP/PLUG.
2. A TAP FOR RAW WATER SAMPLES MUST BE PLACED BEFORE WATER ENTERS A TREATMENT FACILITY, PRESSURE OR STORAGE TANK.
3. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
04/19/78. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

GROUNDWATER APPROPRIATION
PERMIT NUMBER- CE77GAP014

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (If any) -

DNR-133 (7-74)

1	2	3	(SEQ. NO.)	6
8	1	5	1	5
1 2 3 (SEQ. NO.) 6				
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)				

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

FILE IN THE FOLLOWING

DATE RECEIVED
(WRA USE ONLY)

OWNER

COL 16 LAST NAME

STREET
OR RFD

COL 38

POST
OFFICE

COL 57

DRILLER INFORMATION

B-13

1	2	3	(SEQ. NO.)	6
8	2	7	7	7

DATE 8-2-77

LICENSE
NUMBER

250

CONSTANTINE

DiFilippo

FIRST NAME

DRILLER

LAST NAME

SIGNATURE

Constantine DiFilippo

WELL INFORMATION

1	2	3	(SEQ. NO.)	6
8	2	7	7	7

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

10 gpm

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

2,000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☐ D

HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ F

FARMING, AGRICULTURE, IRRIGATION

☒ I

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.

☐ M

MUNICIPAL WATER SUPPLY

☐ P

PRIVATE WATER COMPANY

☐ T

TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL

150

FEET

APPROXIMATE DIAMETER OF WELL

6

(NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED)

JETTED

DRIVEN

30-37 AIR-ROTARY

AIR-PERCUSSION

ROTARY (HYDRAULIC ROTARY)

CABLE

REVERSE-ROTARY

DRITE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

☐ N

THIS WELL WILL NOT REPLACE AN EXISTING WELL

☐ Y

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39

☒ S

THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDOFF

☐ DTHIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

41 32

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION
PERMIT NUMBER

CE77GAP017

ENGINEER REVIEW

DISTRICT NO.

FOREK

AL

WRITE
INITIALS
IN BOX

CONDITIONS

A

E

N

S

G

W

O

C

L

U

B-4

CONTINUED

HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

COUNTY NO.

William A. Summer

APPROVED BY

(15)

(WRA USE ONLY)

ORIGINAL

LOCATION OF WELL

B-3

COUNTY

Cecil

SUBDIVISION

SECTION

NEAREST TOWN

North East

MILES FROM TOWN CENTER

2

DIRECTION FROM TOWN

(CIRCLE APPROPRIATE BOX)

B-4

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN

MILES FROM TOWN CENTER

DIRECTION FROM TOWN

(CIRCLE APPROPRIATE BOX)

NORTH

EAST

SOUTH

WEST

NORTHWEST

SOUTHWEST

NORTHEAST

SOUTHEAST

ON WHICH SIDE OF ROAD

(CIRCLE APPROPRIATE BOX)

NORTH

SOUTH

EAST

WEST

DISTANCE FROM ROAD

(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

11

34

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST

ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW AND

DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM JUNCTION

SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE

AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N

600

acres

BOX

NUMBER

E

N

1030

640

NORTH

COORDINATE

50 51 52 53 54 55

EAST

COORDINATE

57 58 59 60 61 62 63

ELEVATION AT

WELL HEAD (FEET)

55 56 57 58

0/0

5/0

6/0

7/0

8/0

9/0

10/0

11/0

12/0

13/0

14/0

15/0

16/0

17/0

18/0

19/0

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 01/13/78
MO DA YR

PERMIT NUMBER- CE-73-2386

ISSUED TO DRILLER-

DELMARVA DRLG CO IN
CPO BOX 188
BRIDGEVILLE, DEL 19933

DRILLER
ID. NUMBER- 111

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

ROGERSON, HARRY
1112 STONEWOOD CT
WILMINGTON DE 19810

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
07/13/78. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

C 1 5754

SEQUENCE NO.
(WRA USE ONLY)STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD 21401
WELL COMPLETION REPORT

73-23 8c

DATE RECEIVED
(WRA USE ONLY)

MAR 28 1978

2/2/78
DATE WELL COMPLETED

DEPTH OF WELL

177
22 TO NEAREST FOOT

OWNER

Rogerson

LAST NAME

STREET OR RD. 1112 Stonewood Ct

POST OFFICE

HARRIS
Wilmington, DE

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARINGDESCRIPTION
(USE ADDITIONAL SHEETS
IF NECESSARY)

FEET

FROM

TO

CHECK IF
WATER BEARING

top Soil	0	1	
Yellow clay	1	6	
Tan fine to med sand w/gravel	6	53	
Tan fine to med sand w/Iron ore	53	62	
Fine-coarse white sand w/Iron ore	62	81	
White clay w/gravel	81	90	
Red + white clay	90	105	
med white sand	105	108	
Fine-med sand w/streaks of clay	108	156	
Fine-coarse white sand	156	183	

GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT ☒ CMBENTONITE CLAY ☒ BC

NO. OF BAGS 60

NO. OF POUNDS 660

GALLONS OF WATER 36

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 0

TO 20

FEET

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING
TYPE
(INSERT
APPROPRIATE
CODE
BELOW)STEEL ☒ STCONCRETE ☒ COELASTIC ☒ ELOTHER ☐ OT

MAIN CASING TYPE

NOMINAL DIAMETER
TOP (MAIN) CASING
(NEAREST INCH)TOTAL DEPTH
OF MAIN CASING
(NEAREST FOOT)

PL 4

167

60 61 63 64 66 70

OTHER CASING (IF USED)

DIAMETER
(INCH)DEPTH (FEET)
FROM TO

EACH CASING

1 2 3 4 5 6 7 8 9 10

11 12 13 14 15 16 17 18 19 20

21 22 23 24 25 26 27 28 29 30

31 32 33 34 35 36 37 38 39 40

41 42 43 44 45 46 47 48 49 50

51 52 53 54 55 56 57 58 59 60

61 62 63 64 65 66 67 68 69 70

71 72 73 74 75 76 77 78 79 80

81 82 83 84 85 86 87 88 89 90

91 92 93 94 95 96 97 98 99 100

101 102 103 104 105 106 107 108 109 110

111 112 113 114 115 116 117 118 119 120

121 122 123 124 125 126 127 128 129 130

131 132 133 134 135 136 137 138 139 140

141 142 143 144 145 146 147 148 149 150

151 152 153 154 155 156 157 158 159 160

161 162 163 164 165 166 167 168 169 170

171 172 173 174 175 176 177 178 179 180

181 182 183 184 185 186 187 188 189 190

191 192 193 194 195 196 197 198 199 200

201 202 203 204 205 206 207 208 209 210

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221 222 223 224 225 226 227 228 229 230

231 232 233 234 235 236 237 238 239 240

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351 352 353 354 355 356 357 358 359 360

361 362 363 364 365 366 367 368 369 370

371 372 373 374 375 376 377 378 379 380

381 382 383 384 385 386 387 388 389 390

391 392 393 394 395 396 397 398 399 400

401 402 403 404 405 406 407 408 409 410

411 412 413 414 415 416 417 418 419 420

421 422 423 424 425 426 427 428 429 430

431 432 433 434 435 436 437 438 439 440

441 442 443 444 445 446 447 448 449 450

451 452 453 454 455 456 457 458 459 460

461 462 463 464 465 466 467 468 469 470

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491 492 493 494 495 496 497 498 499 500

501 502 503 504 505 506 507 508 509 510

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971 972 973 974 975 976 977 978 979 980

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1101 1102 1103 1104 1105 1106 1107 1108 1109 1110

1111 1112 1113 1114 1115 1116 1117 1118 1119 1120

1121 1122 1123 1124 1125 1126 1127 1128 1129 1130

1131 1132 1133 1134 1135 1136 1137 1138 1139 1140

1141 1142 1143 1144 1145 1146 1147 1148 1149 1150

1151 1152 1153 1154 1155 1156 1157 1158 1159 1160

1161 1162 1163 1164 1165 1166 1167 1168 1169 1170

1171 1172 1173 1174 1175 1176 1177 1178 1179 1180

1181 1182 1183 1184 1185 1186 1187 1188 1189 1190

1191 1192 1193 1194 1195 1196 1197 1198 1199 1200

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1251 1252 1253 1254 1255 1256 1257 1258 1259 1260

1261 1262 1263 1264 1265 1266 1267 1268 1269 1270

1271 1272 1273 1274 1275 1276 1277 1278 1279 1280

1281 1282 1283 1284 1285 1286 1287 1288 1289 1290

1291 1292 1293 1294 1295 1296 1297 1298 1299 1300

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1331 1332 1333 1334 1335 1336 1337 1338 1339 1340

1341 1342 1343 1344 1345 1346 1347 1348 1349 1350

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1361 1362 1363 1364 1365 1366 1367 1368 1

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE—05/16/78
MD-DA-YR

PERMIT NUMBER—CE-T3-2516

ISSUED TO DRILLER—

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER— 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY—

BRITTINGHAM, THOMAS
GREENBANK
CHARLESTOWN MD 21914

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

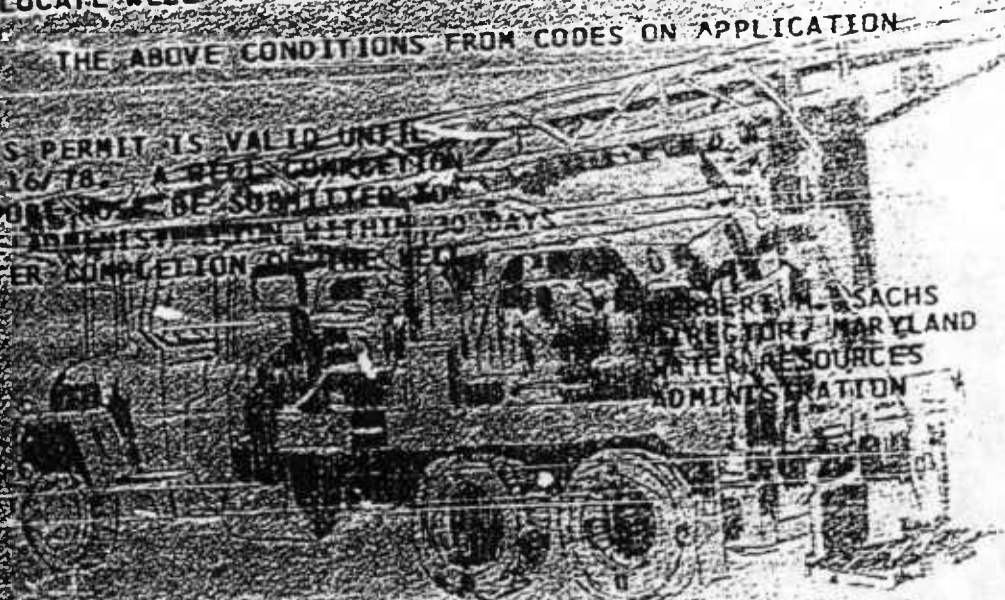
FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

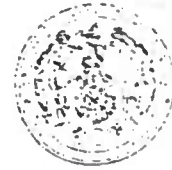
THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
11/16/78. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

ROBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION



STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE - 06/29/78
MO DA YR

PERMIT NUMBER - CE-73-2584

ISSUED TO DRILLER -

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER - 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY -

HUGHES, ROBERT W
302 E JOPPA RD
BALTIMORE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE ABANDONED & SEALED.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
12/29/78. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

73 2584

B1 6970

SEQUENCE NO. 1
FORM JWS-01-77STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELLDATE RECEIVED
(MRA USE ONLY)

JUN 29 1979

OWNER

COL 13 LAST NAME

Hughes, Robert T W

STREET
OR RFD

302 E Joppa Rd

POST
OFFICE

Baltimore, Md

B1 CONTINUED

DRILLER INFORMATION

DATE 6-12-78

LICENSE
NUMBER

159

FIRST NAME OR LAST NAME

LAST NAME

SIGNATURE Vernon W Kirk

B12

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

10

HOME (WELL OR DOUBLE HOUSEHOLD UNIT ONLY)

7

FARMING, AGRICULTURE, IRRIGATION

8

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

9

MUNICIPAL WATER SUPPLY

MUST HAVE STATE HEALTH DEPT. APPROVAL

10

PRIVATE WATER COMPANY

APPROXIMATE DEPTH OF WELL

60

APPROXIMATE DIAMETER OF WELL

6

METHOD OF DRILLING USED (CIRCLE APPROPRIATE BOX)

1

HAND DRIVEN

2

ROTOR DRIVE POINT

3

ROTARY (HYDRAULIC ROTARY)

4

ROTARY (DRIVE POINT)

5

ROTARY (DRIVE POINT)

6

ROTARY (DRIVE POINT)

7

ROTARY (DRIVE POINT)

8

ROTARY (DRIVE POINT)

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ROTARY (DRIVE POINT)

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ROTARY (DRIVE POINT)

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ROTARY (DRIVE POINT)

17

ROTARY (DRIVE POINT)

18

ROTARY (DRIVE POINT)

19

ROTARY (DRIVE POINT)

20

ROTARY (DRIVE POINT)

B3

LOCATION OF WELL

1 2 3

SEQ. NO. 6

COUNTY

Cecil

SUBDIVISION

23

SECTION

44

NEAREST TOWN

Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN)

4

B14

DIRECTION FROM TOWN

1 2 3

SEQ. NO. 5

NORTH

EAST

SOUTH

WEST

NORTHWEST

SOUTHWEST

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NORTH

C 1 3402
 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21403
 WELL COMPLETION REPORT

73-2584

DATE RECEIVED (WRA USE ONLY)

9-9-78

DATE WELL COMPLETED

DEPTH OF WELL

40

22 (TO NEAREST FOOT) 40

ST 00 1078

090474

DRILLER'S IDENTIFICATION NO.

OWNER Hughes Robert W.

POST OFFICE Baltimore

STREET OR RFD 302 E Tappa Rd.

WELL LOG
 STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING.

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	TO	OTHER IF WATER BEARING
Top soil	0	2	
Brown sand & gravel	2	20	
white clay	20	30	
white sand	30	40	

GROUTING RECORD
 WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
 YES ☒ NO ☐
 TYPE OF GROUTING MATERIAL (CIRCLE BOX)
 CEMENT ☒ BENTONITE CLAY ☐
 NO. OF BAGS 4 NO. OF POUNDS 376
 GALLONS OF WATER 24
 DEPTH OF GROUT SEAL (TO NEAREST FOOT)
 FROM 2 FT. TO 20 FT.
 (ENTER 0 IF FROM SURFACE)

CASING RECORD
 CASING TYPES (CIRCLE)
 INSERT ☒ ST ☐ CO ☐
 CONCRETE
 APPROXIMATE CODE BELOW
 PL ☐ OT ☐
 PLASTIC OTHER

MAIN CASING TYPE ST
 NOMINAL DIAMETER TOP MAIN CASING (NEAREST INCH) 6
 TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 35

OTHER CASING (IF USED)
 DIAMETER (INCH) DEPTH (FEET) FROM TO

SCREEN RECORD
 SCREEN TYPE (CIRCLE)
 OPEN HOLE ☒ ST ☐ BR ☐ HO
 INSERT APPROPRIATE CODE BELOW
 PL ☐ OT ☐
 PLASTIC OTHER

DEPTH (NEAREST WHOLE FOOT)
 FROM 0 TO 40

CIRCLE APPROPRIATE BOXES
 WELL WAS ABANDONED AND CANCELED WHEN COMPLETED
 WELL WAS CANCELED TO PRODUCE FOR WELL

WELL DRILLED BY
 FOUNTAIN WELLS, INC. (Baltimore)

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 WELL CANCELED INDICATOR

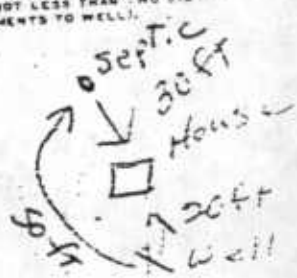
PUMPING TEST
 HOURS PUMPED TO NEAREST 1/2
 PUMPING RATE GALLONS PER MINUTE TO NEAREST GALLON
 METHOD USED TO MEASURE PUMPING RATE
 WATER LEVEL: (DISTANCE FROM LAND SURFACE)
 BEFORE PUMPING 25
 WHEN PUMPING 35
 TYPE OF PUMP USED (CIRCLE)
 A AIR ☐ B DIAPHRAGM ☐
 C CENTRIFUGAL ☐ D ROTARY ☐
 J JET ☐ S SUBMERSIBLE ☐
 Boiler

PUMP INSTALLED
 TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, D, P, S, J, B)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
 CAPACITY:
 GALLONS PER MINUTE (TO NEAREST GALLON)
 PUMP HORSE POWER
 PUMP COLUMN LENGTH (NEAREST FEET)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
 + ABOVE
 - BELOW
 LAND SURFACE

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS SEPTIC TANKS, AND FOR OTHER LAND MARKS INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.



STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE: 07/18/78
MO DA YR

PERMIT NUMBER: CE-73-2605

ISSUED TO DRILLER:

SHORE WELL DRILRS INC

CECILTON MD 21913

DRILLER

ID. NUMBER: 133

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

IREY, DON
RD 1 BOX 365
PERRYVILLE MD 21903

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
CRAFT HAVEN SUBDIVISION, SECTION- , LCT- ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A COMMERCIAL/INDUSTRIAL SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. PROVIDE OPENING FOR TAPE MEASUREMENT OF WATER LEVELS (MIN. INSIDE DIAM. OF ONE-HALF INCH) SEALED BY REMOVABLE CAP/PLUG.
2. A TAP FOR RAW WATER SAMPLES MUST BE PLACED BEFORE WATER ENTERS A TREATMENT FACILITY, PRESSURE OR STORAGE TANK.
3. LOCATE WELL AT LEAST 50 FEET FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
OCTOBER 1, 1979
RENEWAL MUST BE SUBMITTED TO
THE ADMINISTRATION 30 DAYS
BEFORE COMPLETION

GROUNDWATER APPROPRIATION
PERMIT NUMBER: CE69GAP004

HERBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

B 1 6546
 1 2 3 (REQ. NO.) 4
 THIS NUMBER IS TO BE PUNCHED
 IN COLUMNS 3-4 ON ALL CARDS

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAYLOR STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
 APPLICATION FOR PERMIT TO DRILL WELL

73 2605
 FILL IN THIS SECTION

DATE RECEIVED
 (NRA USE ONLY)
 JUL 17 1978
 JUL 27 1978
 JUL 12 1979

OWNER IREY, Doy
 COL 12 LAST NAME
 STREET OR RFO CRAFT HAVEN RD1 - Box 365
 COL 38
 POST OFFICE PERRYVILLE, MARYLAND 21903
 COL 57

B 1 CONTINUED
 1 2 3 (REQ. NO.)
 DATE 6/9/78 LICENSE 138
 SIGNATURE Donah S. Newman
 FIRST NAME Donah S. LAST NAME Newman

B 2 WELL INFORMATION
 1 2 3 (REQ. NO.)
 ESTIMATED PUMPING RATE (GALLONS PER MINUTE) 30
 AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 5000
 USE FOR WATER (CIRCLE APPROPRIATE BOX)
☐ HOME OR SMALL OR LARGE HOLDING UNIT ONLY
☐ FARMING, AGRICULTURE, FORESTRY
☒ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
☐ OTHER

APPROXIMATE DEPTH OF WELL 70
 APPROXIMATE DIAMETER OF WELL 4
 METHOD OF DRILLING USED (CIRCLE APPROPRIATE BOX)
☐ HAND DRILL
☐ AUGER
☐ ROTARY
☐ OTHER

APPROVED BY Donah S. Newman
 DATE 6/10/78
 APPROVAL

B 3 LOCATION OF WELL
 1 2 3 (REQ. NO.)
 COUNTY Cecil
 SUBDIVISION Craft Haven
 SECTION 44 LOT 43
 NEAREST TOWN Charles Town
 MILES FROM TOWN (ENTER 0 IF IN TOWN) 8

B 4 DIRECTION FROM TOWN
 (CIRCLE APPROPRIATE)
☐ NORTH ☐ EAST ☐ NORTHWEST ☒ SOUTHWEST
☐ SOUTH ☐ WEST ☐ NORTHWEST ☐ SOUTHWEST
 NEAR WHAT CARPENTER POINT RD
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
☐ NORTH ☐ SOUTH ☒ EAST ☐ WEST
 DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)
1/2 10

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. AND A YANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. DRAW SKETCH ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE ROAD AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

Sketch showing location of well in relation to nearest roads and streams. The sketch shows a road labeled "Carpenter Point Rd" and a well location marked with an "X". The well is located near the intersection of the road and a stream labeled "Charles Town". The sketch also shows the location of the well in relation to the road and stream.

WELL NUMBER 1050
620
 (105000)
 (1080000)
 ELEVATION AT 65
 WELL HEAD (FEET) 65

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

C-1 9755
SEQUENCE NO. (WHA USE ONLY)

1 2 3 (ISO. NO.)
(THIS NUMBER IS TO BE PURCHASED
IN COLS. 348 ON ALL CARDS)

FILL IN THIS FOR
COUNTY
NUMBER

73-2605

DATE RECEIVED
(WHA USE ONLY)

10/10/73
DATE WELL COMPLETED

DEPTH OF WELL

70
FEET TO NEAREST FOOT

DRILLER IDENTIFICATION NO.

OCT 24 1973

10/10/73

OWNER

Dev: FOD

LAST NAME

POST OFFICE

STREET OR RFD

WELL DESCRIPTION

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION
(USE ADDITIONAL SHEETS
IF NECESSARY)

FEET

CHECK IF

WATER

BEARING

0/2 top soil
2/3 yellow-white clay
5/10 coarse yellow-white-
brown sand

GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT
45 46

BENTONITE CLAY
45 49

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO. OF GALLONS

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 48 FT. TO 54 FT.
ENTER 0 IF FROM SURFACE

CASING RECORD

CASING
TYPES
(INSERT
APPROPRIATE
CODE
BELOW)

ST
STEEL

CO
CONCRETE

PL
PLASTIC

OT
OTHER

MAIN CASING TYPE
NOMINAL DIAMETER
TOP OF MAIN CASING
NEAREST INCH

60 61 62 63 64 65 66 67 68 69 70

OTHER CASING

DIAMETER (INCH) DEPTH (FEET)
FROM TO

SCREEN RECORD

SCREEN TYPE
(INSERT
APPROPRIATE
CODE
BELOW)

ST
STEEL

BR
BRASS

HO
OPEN HOLE

PL
PLASTIC

OT
OTHER

C-2

DEPTH (NEAREST WHOLE FOOT)
TO

15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

CIRCLE APPROPRIATE BOXES

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE

GALLONS PER MINUTE (TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (DISTANCE FROM LAND SURFACE)

REPORT PUMPING

WHEN PUMPING

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)

A AIR
27

C CENTRIFUGAL
27

J JET
27

R ROTARY
27

S SUBMERSIBLE
27

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH (NEAREST FOOT)

PUMP HEIGHT (CIRCLE APPROPRIATE BOX)

ABOVE
BELOW

LAND SURFACE

NEAREST FOOT

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND TOP OF LAND MARK. INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

Paul
H.

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 08/09/78
MD-DA-YB

PERMIT NUMBER- CE-73-2664

ISSUED TO DRILLER-

PRESTON S HAMILTON
115 N PARADISE
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 111

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

FRAZIER, ZEWELL
213 LANDING LA
ELKTON MD 21921

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

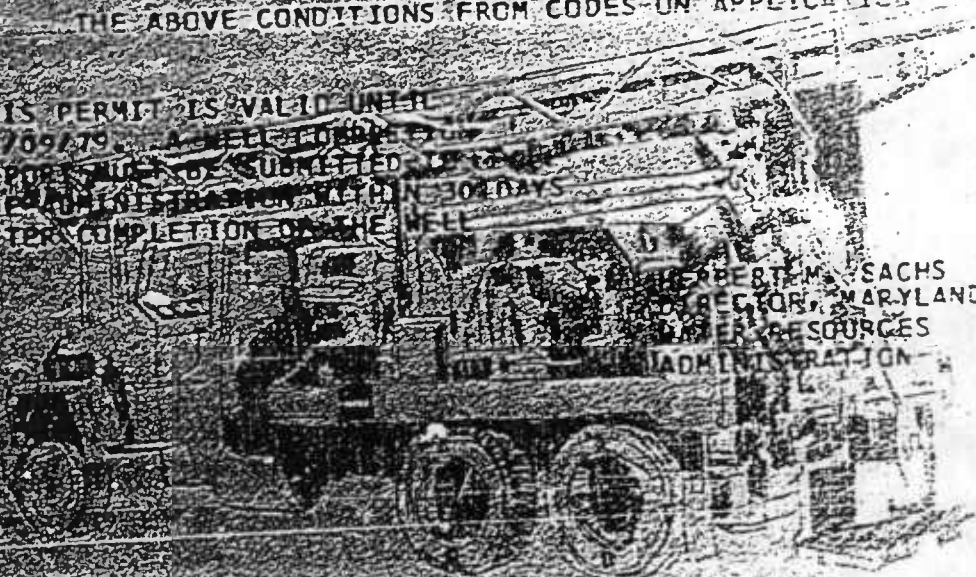
FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
02/09/79. A WELL LOG AND
REPORT MUST BE SUBMITTED TO THE
ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

ROBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION



STATE OF MARYLAND

WATER RESOURCES ADMINISTRATION
TAXES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

73-2664

1468

1 2 3 (SEC. NO.)
(THIS NUMBER IS TO BE PUNCHED
IN CO.-S. 3-6 ON ALL CARDS)DATE RECEIVED
(WRA USE ONLY)

AUG 05 1978

OWNER

COL IS LAST NAME

Frazier

Zewall

STREET
OR RFD

COL 36

c/o McCoy Bldrs., 213 Landing Lane

POST
OFFICE

COL 87

Elkton, MD. 21921

398-2878

LOCATION OF WELL

B 1 CONTINUED

DRILLER INFORMATION

B 3

(SEC. NO.)

COUNTY

Cecil

100 NOT APPLICABLE COUNTY NO.

SUBDIVISION

23

SECTION

44

LOT

40

NEAREST TOWN

Perryville

MILES FROM TOWN (ENTER 0 IF IN TOWN)

1

Charles H. Hamilton, Jr.

FIRST NAME DRILLER LAST NAME

SIGNATURE *Charles H. Hamilton, Jr.*

WELL INFORMATION

1 2 3 (SEC. NO.)

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

10

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ HOME BRIDGE OR DOUBLE HOUSEHOLD UNIT ONLY☐ FARMING, AGRICULTURE, IRRIGATION☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT☐ MUNICIPAL WATER SUPPLY☐ PRIVATE WATER COMPANY☐ TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL

100

APPROXIMATE DIAMETER OF WELL

6

METHOD OF DRILLING USED (CIRCLE APPROPRIATE BOX)

☒ HAND DRIVEN☐ AIR DRIVEN☐ AIR EXHAUST☐ ROTARY☐ HYDRAULIC ROTARY☐ REVERSE ROTARY DRIVE POINT

OTHER (SPECIFY)

REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

☒ THIS WELL WILL BE REPLACED BY EXISTING WELL☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED☐ THIS WELL WILL BE REPLACED BY WELL THAT WILL BE DRILLED AND DEEPENED

B 4

DIRECTION FROM TOWN

(CIRCLE APPROPRIATE BOX)

1 2 3 (SEC. NO.)

N NORTH

S SOUTH

E EAST

W WEST

NE NORTHEAST

NW NORTHWEST

SE SOUTHEAST

SW SOUTHWEST

Rt. 7

ON WHICH SIDE OF ROAD

(CIRCLE APPROPRIATE BOX)

N NORTH

S SOUTH

E EAST

W WEST

Rt. 7

DISTANCE FROM ROAD

(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

40

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO CROSSLING OF

ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW AND

TANCE FROM WELL TO NEARBY ROAD JUNCTION OR STREAM CROSSING

SKETCH ALSO SHOW BY MEANS OF AN "X" THE WELL LOCATION IN THE SKETCH

AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N

46° 30' 10"

Perry St

Second lot from Perry St

Rt 7

X

0/3

5/8

1070

630

6330000

60 61 62 63 64 65

10700000

67 68 69 70 71 72 73

ELEVATION AT

WELL HEAD (FEET)

60 61 62 63 64 65

0/0

WRA USE ONLY

3772
SEQUENCE NO.
(WRA USE ONLY)
DATE RECEIVED
(WRA USE ONLY)
MAR 13 1979
MAR 13 1979

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES-STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DEPTH OF WELL

12-14-78
DATE WELL COMPLETED
16.5
22 (TO NEAREST FOOT) 20

73-2664
C-13

DATE RECEIVED
(WRA USE ONLY)
MAR 13 1979
MAR 13 1979

121478
DATE WELL COMPLETED

DRILLERS IDENTIFICATION NO.

OWNER
LAST NAME
STREET OR RFD
POST OFFICE

WELL LOG
STATE THE KIND OF FORMATIONS PERFORATED, THEIR
COLOR, DEPTH, THICKNESS, AND IF WATER-BEARING.

DESCRIPTION
USE ADDITIONAL SHEETS
IF NECESSARY

FEET
FROM TO
CHECK IF
WATER
BEARING

clay 0.45
sand 15.65
clay 65.98
gravel 98.165

GROUTING RECORD
WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)
YES ☒ NO ☐
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT ☒ BENTONITE CLAY ☐
45 46 45 46

NO. OF BAGS 5 NO. OF POUNDS 500
GALLONS OF WATER 25

DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 0 FT. TO 45 FT.
(ENTER 0 IF FROM SURFACE)

CASING RECORD
Casing Types
INSERT ☒ ST ☐ CO
APPROPRIATE CODE ☐ STEEL ☐ CONCRETE
BELOW ☐ PL ☐ OT
PLASTIC OTHER

MAIN NOMINAL DIAMETER TOTAL DEPTH
CASING OF MAIN CASING OF MAIN CASING
TYPE (NEAREST INCH) (NEAREST FOOT)
37 6 100

OTHER CASING (IF USED)
DIAMETER DEPTH (FEET)
FROM TO

SCREEN RECORD
SCREEN TYPE
INSERT ☒ STEEL ☐ BR ☐ HO
APPROPRIATE CODE ☐ BRASS OPEN HOLE
BELOW ☐ PL ☐ OT
PLASTIC OTHER

DEPTH (NEAREST WHOLE FOOT)
100 16.5

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING,
SEPTIC TANKS, AND/OR OTHER LAND MARKS.
INDICATE NOT LESS THAN TWO DISTANCES
(MEASUREMENTS TO WELL).

LOCATION OF WELL ON LOT
100'

LOCATION OF WELL ON LOT
0 well

PUMPING TEST
HOURS PUMPED (TO NEAREST 0.1)
PUMPING RATE
GALLONS PER MINUTE TO NEAREST GALLON

METHOD USED TO
MEASURE PUMPING RATE

WATER LEVEL (DISTANCE FROM LAND
BEFORE PUMPING
17 25
16.5

WHEN PUMPING
22

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX)
A AIR ☒ B RATION ☐
C CENTRIFUGAL ☐ D ROTARY ☐
J JET ☐ S SUBMERSIBLE ☐

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE LETTER IN
BOX - SEE ABOVE: A, C, J, R, S, T, U)

DRILLER WILL INSTALL PUMP
(CIRCLE APPROPRIATE BOX)
YES ☒ NO ☐

CAPACITY
GALLONS PER MINUTE
(TO NEAREST GALLON)
31 25

PUMP HORSE POWER
37 41

PUMP COLUMN LENGTH
(NEAREST FOOT)
43 41

CASING HEIGHT (CIRCLE APPROPRIATE BOX
AND ENTER CASING HEIGHT)
+ ABOVE
- BELOW
LAND SURFACE
1 1

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING,
SEPTIC TANKS, AND/OR OTHER LAND MARKS.
INDICATE NOT LESS THAN TWO DISTANCES
(MEASUREMENTS TO WELL).

LOCATION OF WELL ON LOT
100'

LOCATION OF WELL ON LOT
0 well

LOCATION OF WELL ON LOT
100'

LOCATION OF WELL ON LOT
0 well

LOCATION OF WELL ON LOT
100'

LOCATION OF WELL ON LOT
0 well

LOCATION OF WELL ON LOT
100'

LOCATION OF WELL ON LOT
0 well

LOCATION OF WELL ON LOT
100'

LOCATION OF WELL ON LOT
0 well

LOCATION OF WELL ON LOT
100'

LOCATION OF WELL ON LOT
0 well

LOCATION OF WELL ON LOT
100'

LOCATION OF WELL ON LOT
0 well

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE 09/26/78
MO-DA-YR

PERMIT NUMBER- CE-73-2713

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

NIXDORF, JOHN E
222 W LIBERTY ST
LANCASTER PA 17603

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
03/26/79. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

HERBERT M. SACHS
REGISTRAR, MARYLAND
WATER RESOURCES
ADMINISTRATION

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE - 09/26/78
MO. DA. YR.

PERMIT NUMBER - CE-73-2718

ISSUED TO DRILLER -

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER - 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY -

NIXDORF, JOHN E
222 W LIBERTY ST
LANCASTER PA 17603

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
03/26/79. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

BERNARD M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

B 1 6979
 1-2-3 (SEC. NO.) 78
 (THIS NUMBER IS TO BE PUNCHED
 IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
 APPLICATION FOR PERMIT TO DRILL WELL

CE-73- 2718
 FULL OF THE FORM

DATE RECEIVED
 (WRA USE ONLY)

OWNER Nixdorf, John E.
 COL 10 LAST NAME FIRST NAME

STREET
 OR RFD 222 W Liberty ST
 COL 35

POST
 OFFICE Lancaster, Pa. 17603
 COL 57

B 1 CONTINUED DRILLER INFORMATION

1-2-3 (SEC. NO.) 78
 DATE 9-11-78 LICENSE
 NUMBER 159 COL 77 COL 80

Vecnon, Kirk
 FIRST NAME LAST NAME

SIGNATURE Vecnon Kirk

B 2 WELL INFORMATION

1-2-3 (SEC. NO.) 78
 MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 3
 AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 300

- USE FOR WATER (CIRCLE APPROPRIATE BOX)
- ☒ DOMESTIC (WELL OR HOUSEHOLD USE ONLY)
 - ☐ FARMING, AGRICULTURE, IRRIGATION
 - ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
 - ☐ MUNICIPAL WATER SUPPLY
 - ☐ PRIVATE WATER COMPANY
 - ☐ OTHER

APPROXIMATE DEPTH OF WELL 10 FEET

APPROXIMATE DIAMETER OF WELL 6 INCHES

METHOD OF DRILLING USED (CIRCLE APPROPRIATE BOX)

- ☒ HAND DRIVEN
- ☐ POWER DRIVEN
- ☐ ROTARY
- ☐ OTHER

REPLACEMENT OR DEEPENED WELL (CIRCLE APPROPRIATE BOX)

- ☐ YES
- ☒ NO

REASON FOR REPLACEMENT OR DEEPENING (CIRCLE APPROPRIATE BOX)

- ☐ COLLAPSE
- ☐ CLOGGING
- ☐ OTHER

REASON FOR REPLACEMENT OR DEEPENING (CIRCLE APPROPRIATE BOX)

- ☐ COLLAPSE
- ☐ CLOGGING
- ☐ OTHER

REASON FOR REPLACEMENT OR DEEPENING (CIRCLE APPROPRIATE BOX)

- ☐ COLLAPSE
- ☐ CLOGGING
- ☐ OTHER

REASON FOR REPLACEMENT OR DEEPENING (CIRCLE APPROPRIATE BOX)

- ☐ COLLAPSE
- ☐ CLOGGING
- ☐ OTHER

REASON FOR REPLACEMENT OR DEEPENING (CIRCLE APPROPRIATE BOX)

- ☐ COLLAPSE
- ☐ CLOGGING
- ☐ OTHER

REASON FOR REPLACEMENT OR DEEPENING (CIRCLE APPROPRIATE BOX)

- ☐ COLLAPSE
- ☐ CLOGGING
- ☐ OTHER

REASON FOR REPLACEMENT OR DEEPENING (CIRCLE APPROPRIATE BOX)

- ☐ COLLAPSE
- ☐ CLOGGING
- ☐ OTHER

REASON FOR REPLACEMENT OR DEEPENING (CIRCLE APPROPRIATE BOX)

- ☐ COLLAPSE
- ☐ CLOGGING
- ☐ OTHER

REASON FOR REPLACEMENT OR DEEPENING (CIRCLE APPROPRIATE BOX)

- ☐ COLLAPSE
- ☐ CLOGGING
- ☐ OTHER

REASON FOR REPLACEMENT OR DEEPENING (CIRCLE APPROPRIATE BOX)

- ☐ COLLAPSE
- ☐ CLOGGING
- ☐ OTHER

B 3 LOCATION OF WELL

1-2-3 (SEC. NO.) 78
 COUNTY Carroll
 SUBDIVISION 33

SECTION 44 LOT 45

NEAREST TOWN Charlestown

MILES FROM TOWN CENTER (IF IN TOWN) 3

DIRECTION FROM TOWN

1-2-3 (SEC. NO.) 78

☒ NORTH ☐ EAST ☐ SOUTHWEST ☐ SOUTHEAST

☐ NORTHWEST ☐ SOUTHWEST

NEAR WHAT ROAD Clark Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) ☒ NORTH ☐ SOUTH

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 40

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST TOWN, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND THE DISTANCE FROM WELL TO NEAREST ROAD OR STREAM CROSSING SHOWN IN THE SKETCH. ALSO SHOW BY MEANS OF AN "X" THE WELL LOCATION IN THE SKETCH, AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

SKETCH

SKETCH

SKETCH

SKETCH

SKETCH

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SKETCH

SKETCH

SKETCH

3142
11-2-78
11-20-78

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21407
WELL COMPLETION REPORT

FILE IN THIS FORM
COUNTY
NUMBER
CE-13-2718
159

DATE RECEIVED (MNA USE ONLY)
DATE WELL COMPLETED
DEPTH OF WELL
150
22 (TO NEAREST FOOT) 28

OWNER Nixdorf, John E.
STREET OR RFD 222 W. Liberty ST
POST OFFICE Lancaster, Pa

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET	THICKNESS	IF WATER BEARING
Top soil	0	2	
Brown sand & gravel	2	30	
red clay	30	70	
yellow clay	70	95	
blue clay	95	130	
white sand	130	150	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT ☒ BENTONITE CLAY ☐
NO. OF BAGS 6 NO. OF POUNDS 564
GALLONS OF WATER 36
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 3 FT. TO 20 FT.
(ENTER IF FROM SURFACE)

CASING RECORD

INSERT APPROPRIATE CODE BELOW
STEEL ☒ CONCRETE ☐
PLASTIC ☐ OTHER ☐
MAIN CASING TOP (NEAREST INCH) 6 DEPTH (FEET) 145
TOTAL DEPTH (FEET) 150

OTHER CASING IF USED

DIMETER (INCH) 6 DEPTH (FEET) 145

SCREEN RECORD

SCREEN TYPE (CIRCLE APPROPRIATE BOX)
STEEL ☒ BRASS ☐ WIRE ☐
PLASTIC ☐ OTHER ☐
DEPTH (FEET) 145

DEPTH (FEET)

145 150

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR) 14
PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON) 15
METHOD USED TO MEASURE PUMPING RATE Boiler
WATER LEVEL (DISTANCE FROM GROUND SURFACE)
BEFORE PUMPING 60
WHEN PUMPING 90
TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)
A AIR ☐ D PISTON ☐
C CENTRIFUGAL ☐ R ROTARY ☐
J JET ☐ S SUBMERSIBLE ☐
Boiler

PUMP INSTALLED

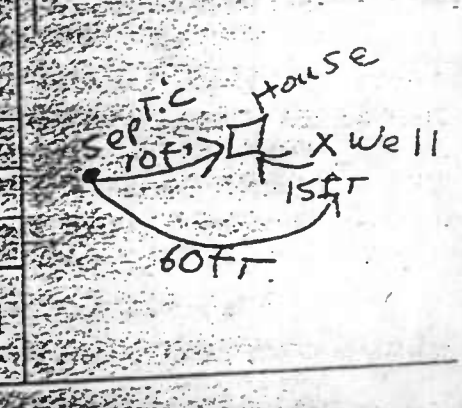
TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, J, R, S, T, O)
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
CAPACITY:
GALLONS PER MINUTE (TO NEAREST GALLON) 31
PUMP HORSE POWER 37
PUMP COLUMN LENGTH (NEAREST FOOT) 42

CASING HEIGHT

(CIRCLE APPROPRIATE BOX) AND ENTER CASING HEIGHT
+ ABOVE LAND SURFACE
- BELOW LAND SURFACE
60 FT

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES AND MEASUREMENTS TO WELL.



DRILLER'S NAME Vernon W. Kalk
DATE 11-2-78
WELL NO. 3142

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE 09/28/78
NO. 84 YR

PERMIT NUMBER CE-73-2724

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

PASCAL, VIRGINIA
GREENBANK RD
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
03/28/79. A WELL LOG AND
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

JOHN ABERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

11

DRAWING A STRETCH BELOW, SHOWING LOCATION OF WELL IN RELATION TO NEARBY
 ROADS, AND STREAMS, WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE THE
 TANGENT FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWING
 STRETCH ALSO SHOWN BY NO. 12 OF ABOVE, THE WELL LOCATION IN THE BOX SHOWN
 AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

[illegible]

C 1 3049
 (THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3-6 ON ALL CARDS)
 DATE RECEIVED (WRA USE ONLY) 11-20-78
 DATE WELL COMPLETED 11-9-78
 SEQUENCE NO. (WRA USE ONLY) 1110978

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
 WELL COMPLETION REPORT

FILL IN THIS SECTION
 COUNTY NUMBER
 DEPTH OF WELL 55
 (TO NEAREST FOOT)
 DRILLER'S IDENTIFICATION NO. 155

OWNER: Pascal, Virginia
 STREET OR RFD: Greenbank Rd.
 POST OFFICE: Charlestown, MD.
 FIRST NAME: C 3

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	TO	CHECK IF WATER BEARING
Top soil	0	2	
Brown sand	2	20	
Red clay	20	40	
White sand	40	50	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
 YES ☒ NO ☐
 TYPE OF GROUTING MATERIAL (CIRCLE BOX)
 CEMENT ☒ BENTONITE CLAY ☐
 NO. OF BAGS 4 NO. OF POUNDS 376
 GALLONS OF WATER 24
 DEPTH OF GROUT SEAL (TO NEAREST FOOT)
 FROM 2 FT. TO 15 FT.
 (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPE: INSERT APPROPRIATE CODE BELOW
 ST ☒ CO ☐ PL ☐ OT ☐
 CONCRETE PLASTIC OTHER
 MAIN CASING TYPE: ST ☒ CO ☐ PL ☐ OT ☐
 NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH) 6 TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 50

OTHER CASING IF USED

DIAMETER (INCH) DEPTH (FEET) FROM TO
 1 1 1 1
 2 2 2 2

SCREEN RECORD

SCREEN TYPE: INSERT APPROPRIATE CODE BELOW
 ST ☒ BR ☐ MO ☐ PL ☐ OT ☐
 BRASS TYPED HOLE DRILLING PLASTIC OTHER
 DEPTH (NEAREST FOOT) FROM 15 TO 55

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR) 2
 PUMPING RATE: GALLONS PER MINUTE TO NEAREST GALLON 15
 METHOD USED TO MEASURE PUMPING RATE: Bail
 WATER LEVEL (DISTANCE FROM GROUND SURFACE) BEFORE PUMPING 6 WHEN PUMPING 30
 TYPE OF PUMPED USED (FOR PUMPING TEST):
 A AIR ☐ P PISTON ☐ J JET ☐ S SUBMERSIBLE ☒
 C CENTRIFUGAL ☐ R ROTARY ☐
 Bailer

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER & BOX - SEE ABOVE: A, C, J, P, R, S, T, U)
 DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
 CAPACITY:
 GALLONS PER MINUTE (TO NEAREST GALLON) 21
 PUMP HORSE POWER 27
 PUMP COLUMN LENGTH (NEAREST FOOT) 43

CASING HEIGHT

(CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
 + ABOVE LAND SURFACE
 - BELOW GROUND SURFACE
 49

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS. INDICATE NOT LESS THAN TWO DISTANCES MEASUREMENTS TO WELL.



CIRCLE APPROPRIATE BOXES

DRILLER'S NAME: Vernon R. ...
 ADDRESS: ...
 CITY: ...
 STATE: ...
 ZIP: ...

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE - 01/10/79
MD-DACR

PERMIT NUMBER - CE-73-2851

ISSUED TO DRILLER -

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID. NUMBER - 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY -

GARBER, CARL W
407 HILTON DR
LANCASTER PA 17603

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
SUBDIVISION, SECTION- , LOT- 26 ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM

THE ABOVE CONDITIONS FROM GOES ON APPLICATION

THIS PERMIT IS VALID UNTIL
07/01/79. AFTER COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION IN
WATER RESOURCES ADMINISTRATION

HERBERT W. SACHS
DIRECTOR
MARYLAND
WATER RESOURCES
ADMINISTRATION
ANNAPOLIS, MARYLAND

EMERGENCY NO. (If any)

STATE OF MARYLAND

WATER RESOURCES ADMINISTRATION

TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401

APPLICATION FOR PERMIT TO DRILL WELL

6588

73-2851

1. 2. 3. (REQ. NO. 1)
(THIS NUMBER IS TO BE PUNCHED
IN CDS. 3-8 ON ALL CARDS)DATE RECEIVED
(WHA USE ONLY)

JAN 01 1973

NAME

COL 15 LAST NAME

STREET
OR RFD

COL 36

POST
OFFICE

COL 87

DRILLER INFORMATION

B.1. CONTINUED

DATE 1-2-79

LICENSE
NUMBER

159

Vernon W. Kirk

SIGNATURE Vernon W. Kirk

WELL INFORMATION

B.2. (REQ. NO. 2)

EXHAUSTION PUMPING RATE (GALLONS PER MINUTE)

3

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

700

USE FOR WATER (CIRCLE APPROPRIATE BOX)

HOME, SINGLE OR DOUBLE HOUSEHOLD USE ONLY

AGRICULTURE, IRRIGATION

MINING, MINERAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

MUNICIPAL WATER SUPPLY

STATE WATER SUPPLY

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL

80

APPROXIMATE DIAMETER OF WELL

6

METHOD OF DRILLING USED (CIRCLE APPROPRIATE BOX)

HAND DRILL

MOTOR DRILL

ROTARY DRILL

OTHER

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

REPLACEMENT

DEEPEMED

OTHER

WELL LOCATION MAP

WELL LOCATION MAP

WELL LOCATION MAP

WELL LOCATION MAP

WELL LOCATION MAP

WELL LOCATION MAP

WELL LOCATION MAP

WELL LOCATION MAP

WELL LOCATION MAP

WELL LOCATION MAP

WELL LOCATION MAP

WELL LOCATION MAP

B.3

LOCATION OF WELL

COUNTY

Cecil

SUBDIVISION

SECTION

NEAREST TOWN

Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN)

5

DIRECTION FROM TOWN

(CIRCLE APPROPRIATE BOX)

NORTH

EAST

SOUTH

WEST

NORTHWEST

SOUTHWEST

NORTHEAST

SOUTHEAST

ON WHICH SIDE OF ROAD

(CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD

(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

150

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROAD, STREAM, OR OTHER LANDMARK. SHOW THE DIRECTION OF THE ARROW, AND GIVE THE DISTANCE FROM WELL TO NEAREST ROAD, JUNCTION OR STREAM CROSSING (CIRCLE APPROPRIATE BOX). ALSO SHOW BY "X" THE WELL LOCATION IN THE BOX NUMBER AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N

E

S

W

NORTHWEST

SOUTHWEST

NORTHEAST

SOUTHEAST

ON WHICH SIDE OF ROAD

(CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD

(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROAD, STREAM, OR OTHER LANDMARK. SHOW THE DIRECTION OF THE ARROW, AND GIVE THE DISTANCE FROM WELL TO NEAREST ROAD, JUNCTION OR STREAM CROSSING (CIRCLE APPROPRIATE BOX). ALSO SHOW BY "X" THE WELL LOCATION IN THE BOX NUMBER AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N

E

S

W

NORTHWEST

SOUTHWEST

NORTHEAST

SOUTHEAST

ON WHICH SIDE OF ROAD

(CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD

(ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROAD, STREAM, OR OTHER LANDMARK. SHOW THE DIRECTION OF THE ARROW, AND GIVE THE DISTANCE FROM WELL TO NEAREST ROAD, JUNCTION OR STREAM CROSSING (CIRCLE APPROPRIATE BOX). ALSO SHOW BY "X" THE WELL LOCATION IN THE BOX NUMBER AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N

E

S

W

NORTHWEST

SOUTHWEST

NORTHEAST

SOUTHEAST

Charles Town

Carpenters Pt. Rd.

50 ft

10.76

620

15000

15000

15000

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1876
DATE RECEIVED
MAR 15 1979
DATE WELL COMPLETED
2-22-79
022279

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAKES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

2851
022279
159

OWNER Garber, Carl W
STREET OR RFD 407 Hilltop Dr
POST OFFICE Lancaster Pa

WELL LOG

DESCRIPTION	FEET	CHECK IF WATER BEARING
TOP SOIL	0-2	
Brown sand + gravel	2-20	
red clay	20-50	
white clay	50-70	
white sand	70-87	

GROUTING RECORD

WELL HAS BEEN GROUTED
TYPE OF GROUTING MATERIAL (CIRCLE ONE)
CEMENT ☒ BENTONITE CLAY ☐
NO. OF BAGS 5 NO. OF POUNDS 470
GALLONS OF WATER 30
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 2 FT. TO 25 FT.
ENTER 0 IF FROM SURFACE

CASING RECORD

CASING TYPES
STEEL ☒ CONCRETE ☐
PLASTIC ☐ OTHER ☐
MAIN CASING DIAMETER (TO NEAREST INCH) 5.75
TOTAL DEPTH OF MAIN CASING (TO NEAREST FOOT) 82

OTHER CASING (IF USED)

SCREEN RECORD

SCREEN TYPE
WIRE MESH ☒ SLIT ☐ NO. ☐
PLASTIC ☐ OTHER ☐
DEPTH (NEAREST WHOLE FOOT) 82

PUMPING TEST

HOURS PUMPED TO NEAREST HOUR
PUMPING RATE
GALLONS PER MINUTE TO NEAREST GALLON
METHOD USED TO MEASURE PUMPING RATE Bailer
WATER LEVEL (DISTANCE FROM GANT GAGE)
BEFORE PUMPING 40
WHEN PUMPING 60
TYPE OF PUMP USED (CIRCLE APPROPRIATE ONE)
A AIR ☐ PISTON ☐
C CENTRIFUGAL ☐ ROTARY ☐
J JET ☐ SUBMERSIBLE ☐
Bailer

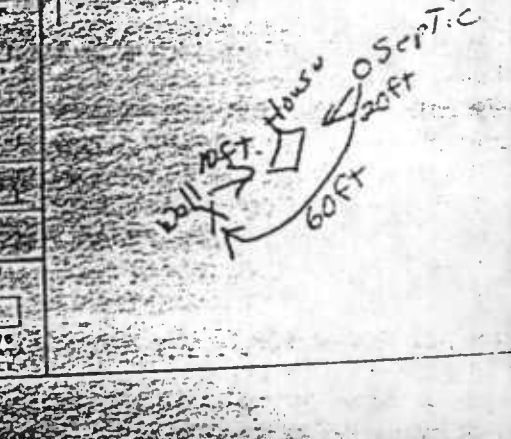
PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, J, P, R, S, T, U)
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE ONE)
CAPACITY
GALLONS PER MINUTE (TO NEAREST GALLON)
PUMP HORSE POWER
PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

(CIRCLE APPROPRIATE ONE) AND ENTER CASING HEIGHT
+ ABOVE
- BELOW
LAND SURFACE
50 51 52

LOCATION OF WELL ON LOT



STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE - 04/03/79
NO DAYR

PERMIT NUMBER - CE-73-2902

ISSUED TO DRILLER -

SHORE WELL DRILRS INC

CECILTON MD 21913

DRILLER
ID. NUMBER - 138

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY -

BOSTIC, STEPHEN
BURNT BARN RD
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
04/03/80. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
OF WELL COMPLETION.

ROBERT M. SACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (If any) -

73-2902

0563
1-2-3 (SEQ. NO.)
1-2-3 NUMBER IS TO BE PUNCHED
IN COLUMNS 1-3 ON ALL CARDS

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAKES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DATE RECEIVED (FOR USE ONLY)
APR 04 1979
OWNER: Bostic, ~~Steve~~ Stephen
COL. 18 LAST NAME
STREET OR RFD: BURNT BARN Rd.
POST OFFICE: PERRYVILLE MARYLAND
COL. 57

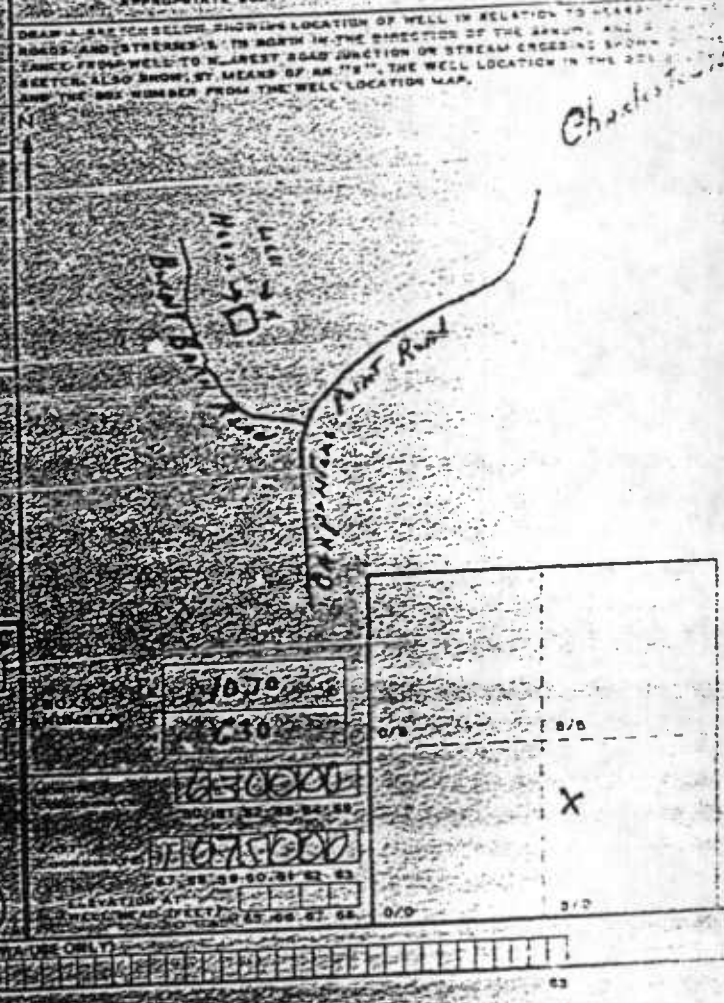
DRILLER INFORMATION
B 1
1-2-3 (SEQ. NO.)
DATE: 3/28/79
LICENSE NUMBER: 138
DRILLER: Donald S. NEWMAN
FIRST NAME: Donald S. Newman
LAST NAME: Newman
SIGNATURE: Donald S. Newman

WELL INFORMATION
B 2
1-2-3 (SEQ. NO.)
MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 10
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY): 1000
USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ DOMESTIC OR DOUBLE HOME HOLD (UNTIL OK'D)
☐ FARMING, AGRICULTURE, PASTURE, ETC.
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER SUPPLY
MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL: 200
APPROXIMATE DIAMETER OF WELL: 4 (NEAREST INCH)
METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
☒ HAND-DRIVEN
☐ AIR-PERCUSSION
☐ ROTARY-HYDRAULIC-ROTARY
☐ REVERSE-ROTARY-DRIVE POINT

REMARKS OR OTHER NOTES (CIRCLE APPROPRIATE BOX)
☒ NO OTHER NOTES
☐ OTHER NOTES
WATER RESOURCES ADMINISTRATION
ANNAPOLIS, MARYLAND 21401
1-2-3 (SEQ. NO.)
1-2-3 NUMBER IS TO BE PUNCHED
IN COLUMNS 1-3 ON ALL CARDS

LOCATION OF WELL
B 3
1-2-3 (SEQ. NO.)
COUNTY: Cecil
SUBDIVISION: 23
SECTION: 44
NEAREST TOWN: CHARLESTOWN
MILES FROM TOWN CENTER OR IF IN TOWN: 5
DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)
☐ N NORTH
☐ E EAST
☐ NE NORTHEAST
☐ S SOUTH
☒ W WEST
☐ NW NORTHWEST
☐ SE SOUTHEAST
NEAR WHAT ROAD: BURNT BARN Road
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
☐ N NORTH
☐ S SOUTH
☒ E EAST
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 300



Charles Town

X

0/0

0/0

DNR-716 (7-77)

SEQUENCE NO. (DNR USE ONLY)
 3009
 (THIS NUMBER IS TO BE PUNCHED IN FOLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
 WELL COMPLETION REPORT

DATE RECEIVED (DNR USE ONLY)

4/20/79

DEPTH OF WELL

165
22 (TO NEAREST FOOT) 24

DRILLERS IDENTIF. CAT. OR NO. 133

2902

APR 25 1979

OWNER Bostic, Stephen

POST OFFICE Perryville, Maryland

STREET OR RFD Burnt Barn Rd.

WELL LOG

WELL DESCRIPTION

GROUTING RECORD

YES

NO
N

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING.

DESCRIPTION	FEET	WATER BEARING
0/2 top soil		
2/60 yellow sand-clay-gravel		
60/103 white clay-sand		
103/128 red-white clay-sand		
128/153 red-white-yellow clay		
153/165 coarse yellow-white sand		

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE SGT)

CEMENT C M BENTONITE CLAY B C

45 46 45 46

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 45 TO 54

ENTERED IF FROM SURFACE

Casing Record

Casing Type

Main Casing Type

Nominal Diameter

Total Depth

Top (Main) Casing

Depth (Feet)

Other Casing (if used)

Diameter (Inch)

Depth (Feet)

Screen Record

Screen Type

Screen Diameter

Screen Depth

Screen Material

Screen Location

Screen Orientation

Screen Condition

Screen Notes

Screen Remarks

Screen Signature

Screen Date

Screen Initials

Screen Title

Screen Address

Screen City

Screen State

Screen Zip

Screen Phone

Screen Fax

Screen Email

Screen Website

Screen Social Media

Screen Other

Screen Final

Screen End

Screen Done

Screen Thank

Screen Goodbye

Screen Bye

Screen See You

Screen Later

Screen Tomorrow

Screen Next Week

Screen Next Month

Screen Next Year

Screen Forever

Screen Always

Screen Never

Screen Sometimes

Screen Often

Screen Rarely

Screen Occasionally

Screen Frequently

Screen Very Frequently

Screen Extremely Frequently

Screen Constantly

Screen Continuously

Screen Endlessly

Screen Forevermore

Screen Always and Forever

Screen To the End of Time

Screen Until the Day After Tomorrow

Screen Until the End of the World

Screen Amen

C 3

PUMPING TEST

HOURS PUMPED TO NEAREST 1/2 H.

PUMPING RATE
GALLONS PER MINUTE TO NEAREST GALLON

METHOD USED TO MEASURE PUMPING RATE BUCKET

WATER LEVEL (IN WELL FROM SURFACE)

BEFORE PUMPING 90

WHEN PUMPING 118

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)

FOR PUMPING TEST

A AIR

B PERISTALTIC

C CENTRIFUGAL

D JET

E SUBMERSIBLE

F OTHER

G PUMP

H PUMP

I PUMP

J PUMP

K PUMP

L PUMP

M PUMP

N PUMP

O PUMP

P PUMP

Q PUMP

R PUMP

S PUMP

T PUMP

U PUMP

V PUMP

W PUMP

X PUMP

Y PUMP

Z PUMP

AA PUMP

AB PUMP

AC PUMP

AD PUMP

AE PUMP

AF PUMP

AG PUMP

AH PUMP

AI PUMP

AJ PUMP

AK PUMP

AL PUMP

AM PUMP

AN PUMP

AO PUMP

AP PUMP

AQ PUMP

AR PUMP

AS PUMP

AT PUMP

AU PUMP

AV PUMP

AW PUMP

AX PUMP

AY PUMP

AZ PUMP

BA PUMP

BB PUMP

BC PUMP

BD PUMP

BE PUMP

BF PUMP

BG PUMP

BH PUMP

BI PUMP

BJ PUMP

BK PUMP

BL PUMP

BM PUMP

BN PUMP

BO PUMP

BP PUMP

BQ PUMP

BR PUMP

BS PUMP

BT PUMP

BU PUMP

BV PUMP

BW PUMP

BX PUMP

BY PUMP

BZ PUMP

CA PUMP

CB PUMP

CC PUMP

CD PUMP

CE PUMP

CF PUMP

CG PUMP

CH PUMP

CI PUMP

CJ PUMP

CK PUMP

CL PUMP

CM PUMP

CN PUMP

CO PUMP

CP PUMP

CQ PUMP

CR PUMP

CS PUMP

CT PUMP

CU PUMP

CV PUMP

CW PUMP

CX PUMP

CY PUMP

CZ PUMP

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DG PUMP

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DP PUMP

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DS PUMP

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DV PUMP

DW PUMP

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DZ PUMP

EA PUMP

EB PUMP

EC PUMP

ED PUMP

EE PUMP

EF PUMP

EG PUMP

EH PUMP

EI PUMP

EJ PUMP

EK PUMP

EL PUMP

EM PUMP

EN PUMP

EO PUMP

EP PUMP

EQ PUMP

ER PUMP

ES PUMP

ET PUMP

EU PUMP

EV PUMP

EW PUMP

EX PUMP

EY PUMP

EZ PUMP

FA PUMP

FB PUMP

FC PUMP

FD PUMP

FE PUMP

FF PUMP

FG PUMP

FH PUMP

FI PUMP

FJ PUMP

FK PUMP

FL PUMP

FM PUMP

FN PUMP

FO PUMP

FP PUMP

FQ PUMP

FR PUMP

FS PUMP

FT PUMP

FU PUMP

FV PUMP

FW PUMP

FX PUMP

FY PUMP

FZ PUMP

GA PUMP

GB PUMP

GC PUMP

GD PUMP

GE PUMP

GF PUMP

GG PUMP

GH PUMP

GI PUMP

GJ PUMP

GK PUMP

GL PUMP

GM PUMP

GN PUMP

GO PUMP

GP PUMP

GQ PUMP

GR PUMP

GS PUMP

GT PUMP

GU PUMP

GV PUMP

GW PUMP

GX PUMP

GY PUMP

GZ PUMP

HA PUMP

HB PUMP

HC PUMP

HD PUMP

HE PUMP

HF PUMP

HG PUMP

HH PUMP

HI PUMP

HJ PUMP

HK PUMP

HL PUMP

HM PUMP

HN PUMP

HO PUMP

HP PUMP

HQ PUMP

HR PUMP

HS PUMP

HT PUMP

HU PUMP

HV PUMP

HW PUMP

HX PUMP

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II PUMP

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 05/15/79
MO DA YR

PERMIT NUMBER- CE-73-2957

ISSUED TO DRILLER-

SHORE WELL DRILRS INC
CECILTON MD 21913

DRILLER
ID. NUMBER- 138

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

CHESTNUT PT MARINA
CARPENTERS PT RD
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A COMMERCIAL/INDUSTRIAL SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. PROVIDE OPENING FOR TAPE MEASUREMENT OF WATER LEVELS (MIN. INSIDE DIAM. OF ONE HALF INCH) SEALED BY REMOVABLE CAP/PLUG.
2. A TAP FOR RAW WATER SAMPLES MUST BE PLACED BEFORE WATER ENTERS A TREATMENT FACILITY, PRESSURE OR STORAGE TANK.
3. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS APPLY FROM DATE OF APPLICATION

THIS PERMIT IS VALID FOR 30 DAYS
IF THE WELL IS NOT DRILLED WITHIN 30 DAYS
THE PERMIT WILL BE VOID
HERBERT MESSACHS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (If any)

STATE OF MARYLAND

WATER RESOURCES ADMINISTRATION

TAYES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21403

APPLICATION FOR PERMIT TO DRILL WELL

73-2957

FILL IN THIS SECTION

NOTES

FIRST NAME

DATE RECEIVED
FOR USE ONLY

OWNER

CHESTNUT POINT MARINA

CODE IS LAST NAME

STREET

CARPENTERS POINT ROAD

OR RFD

PERRYVILLE, MARYLAND

POST

OFFICE

COL. 57

COUNTY

DRILLER INFORMATION

1 2 3 (SEQ. NO.)

DATE 3/19/79

LICENSE NUMBER 735

DRILLER

DONALD S. NEWMAN

FIRST NAME

LAST NAME

SIGNATURE

DONALD S. NEWMAN

WELL INFORMATION

1 2 3 (SEQ. NO.)

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

DOMESTIC (CIRCLE APPROPRIATE BOX)

AGRICULTURE (CIRCLE APPROPRIATE BOX)

INDUSTRIAL (CIRCLE APPROPRIATE BOX)

MUNICIPAL (CIRCLE APPROPRIATE BOX)

PRIVATE WATER COMPANY (CIRCLE APPROPRIATE BOX)

APPROXIMATE DEPTH OF WELL

APPROXIMATE DIAMETER OF WELL

METHOD OF DRILLING USED

ROTARY

OTHER

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROAD, RAILROAD, AND STREAMS, WITH NORTH IN THE DIRECTION OF THE ARROW, AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. IN THE SKETCHES SHOW, BY 1/4 CORNER OF AN "X", THE WELL LOCATION IN THE SECTION AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N

E

S

W

Carpenters Pt. Rd.

Chestnut Point Marina

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CI	7578	SEQUENCE NO. WRA USE ONLY
DATE RECEIVED (WRA USE ONLY)		
JUL 16 1979		

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
 TAMES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (WRA USE ONLY)	DATE WELL COMPLETED	DEPTH OF WELL
JUL 16 1979	6/22/79	93
	062279	22 (TO NEAREST FOOT)

DRILLERS IDENTIFICATION NO. 138

OWNER Chestnut Pt. Marina POST OFFICE Perryville Maryland
 STREET OR RFD Carpenters Pt. Road

WELL LOG			GROUTING RECORD	
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING.	FEET	CHECK IF WATER BEARING	WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
DESCRIPTION	FROM	TO	TYPE OF GROUTING MATERIAL (CIRCLE BOX)	
0/2 top soil			CEMENT <input checked="" type="checkbox"/> BENTONITE CLAY <input type="checkbox"/>	
2/20 red-white-yellow clay			NO. OF BAGS	NO. OF ROUNDS
20/50 yellow-white clay			NO ANNULAR SPACE	
sand			DEPTH OF GROUT SEAL (TO NEAREST FOOT)	
50/93 coarse yellow-white sand				

CASING RECORD	
CASING TYPES	TYPE OF CASING MATERIAL (CIRCLE BOX)
STEEL <input checked="" type="checkbox"/> CONCRETE <input type="checkbox"/>	
PLASTIC <input type="checkbox"/> OTHER <input type="checkbox"/>	
MAIN HORIZONTAL DIAMETER OF MAIN CASING	TOTAL DEPTH OF MAIN CASING
TYPE (NEAREST INCH)	(NEAREST FOOT)
STEEL 6	86

OTHER CASING IF USED	
DIAMETER	DEPTH (FEET)
STEEL 4	85
CONCRETE	88

SCREEN RECORD	
SCREEN TYPE OR OPEN HOLE	TYPE OF SCREEN (CIRCLE BOX)
STEEL <input checked="" type="checkbox"/> BRASS <input type="checkbox"/> OPEN HOLE <input type="checkbox"/>	
PLASTIC <input type="checkbox"/> OTHER <input type="checkbox"/>	

SCREEN TYPE OR OPEN HOLE	TYPE OF SCREEN (CIRCLE BOX)
STEEL <input checked="" type="checkbox"/> BRASS <input type="checkbox"/> OPEN HOLE <input type="checkbox"/>	
PLASTIC <input type="checkbox"/> OTHER <input type="checkbox"/>	

SCREEN TYPE OR OPEN HOLE	TYPE OF SCREEN (CIRCLE BOX)
STEEL <input checked="" type="checkbox"/> BRASS <input type="checkbox"/> OPEN HOLE <input type="checkbox"/>	
PLASTIC <input type="checkbox"/> OTHER <input type="checkbox"/>	

SCREEN TYPE OR OPEN HOLE	TYPE OF SCREEN (CIRCLE BOX)
STEEL <input checked="" type="checkbox"/> BRASS <input type="checkbox"/> OPEN HOLE <input type="checkbox"/>	
PLASTIC <input type="checkbox"/> OTHER <input type="checkbox"/>	

SCREEN TYPE OR OPEN HOLE	TYPE OF SCREEN (CIRCLE BOX)
STEEL <input checked="" type="checkbox"/> BRASS <input type="checkbox"/> OPEN HOLE <input type="checkbox"/>	
PLASTIC <input type="checkbox"/> OTHER <input type="checkbox"/>	

SCREEN TYPE OR OPEN HOLE	TYPE OF SCREEN (CIRCLE BOX)
STEEL <input checked="" type="checkbox"/> BRASS <input type="checkbox"/> OPEN HOLE <input type="checkbox"/>	
PLASTIC <input type="checkbox"/> OTHER <input type="checkbox"/>	

SCREEN TYPE OR OPEN HOLE	TYPE OF SCREEN (CIRCLE BOX)
STEEL <input checked="" type="checkbox"/> BRASS <input type="checkbox"/> OPEN HOLE <input type="checkbox"/>	
PLASTIC <input type="checkbox"/> OTHER <input type="checkbox"/>	

PUMPING TEST	
HOURS PUMPED (TO NEAREST HOUR)	1
PUMPING RATE	45
GALLONS PER MINUTE TO NEAREST GALLON	
METHOD USED TO MEASURE PUMPING RATE	OROTHER
WATER LEVEL (DISTANCE TO WATER)	
BEFORE PUMPING	68
WHEN PUMPING	84
TYPE OF PUMP USED (CIRCLE BOX)	
AIR <input type="checkbox"/> ROTARY <input type="checkbox"/> CENTRIFUGAL <input checked="" type="checkbox"/> SUBMERSIBLE <input type="checkbox"/>	

PUMP INSTALLED	
TYPE OF PUMP (CIRCLE APPROPRIATE LETTER A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z)	
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)	
CAPACITY	
GALLONS PER MINUTE TO NEAREST GALLON	85 35
PUMP HORSE POWER	2
PUMP COLUMN LENGTH (NEAREST FOOT)	85

CASING HEIGHT	
CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER INCHES)	
LAND SURFACE	50

LOCATION OF WELL ON LOT	
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SETBACK LINES, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.	

Carpenter, PHH

P.H.

30' x 40'

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE 07/16/79
MO DA YE

PERMIT NUMBER CE-73-3062

ISSUED TO DRILLER-

SHORE WELL DRILRS INC

CECILTON MD 21913

DRILLER

ID. NUMBER- 138

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

FREEDY, JOHN
9108 ABIGAIL DR
BALTIMORE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
GREEN BANK SUBDIVISION, SECTION- , LGT- 4 ,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION.

THIS PERMIT IS VALID UNTIL
COMPLETION OF WELL
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION OF WATER RESOURCES
AFTER COMPLETION OF THE WELL

JOHN C. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-73-3062

DATE RECEIVED
WRA USE ONLY
JUL 16 1979

OWNER Freedy, John
COL 18 - LAST NAME
STREET 9108 Abigail Drive Apt. 1-C
OR RFD
COL 28
POST Baltimore, Maryland
OFFICE
COL 57

0-15
B-1 CONTINUED
1 2 3 4 5 6
DATE 8/10/79 LICENSE NUMBER 138
DONALD S. NEWMAN
FIRST NAME DRILLER LAST NAME
SIGNATURE Donald S. Newman

B 2		WELL INFORMATION	
1	2	3 (REQ. NO.)	4
MAXIMUM PUMPING RATE (GALLONS PER MINUTE)		5	
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)		6	
USE FOR WATER (CIRCLE APPROPRIATE BOX)			
<input checked="" type="checkbox"/>	DOMESTIC (SINGLE OR DOUBLE HOUSEHOLD USE ONLY)		
<input type="checkbox"/>	FARMING, HORTICULTURE, PESTICIDE		
<input type="checkbox"/>	INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT		
<input type="checkbox"/>	MUNICIPAL WATER SUPPLY		
<input type="checkbox"/>	PRIVATE WATER COMPANY		
<input type="checkbox"/>	OTHER		

APPROXIMATE DEPTH OF WELL 100
APPROXIMATE DIAMETER OF WELL 4 (NEAREST INCH)
METHOD OF DRILLING USED (CHECK APPROPRIATE METHOD)
ROTARY AIR-DRIVEN ☒ AIR-DRIVEN ☐
AIR-ROTARY ☐ AIR-PERCUSSION ☐ NOTARY-HYDRAULIC ROTARY ☐
REVERSE ROTARY ☐ DRILL POINT ☐
SAMS

RECEIVED
1944
JAN 10 1944
U.S. DEPT. OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D. C.
100-100000-100000

LOCATION OF SELL

B 3 3 (SEQ. NO.) 4

COUNTY 100 NOT ABBREVIATE COUNTY NAME

SUBDIVISION 23

SECTION 44 46 LOT 4

NEAREST TOWN 82 Charles Town

MILES FROM TOWN (ENTER 0 IF IN TOWN) 75

B 4 (SEQ. NO.) 4

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST S E SOUTHEAST

S SOUTH W WEST NW NORTHWEST S W SOUTHWEST

NEAR WHAT ROAD 82 GREENBANK ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH SOUTH EAST WEST

N S E W

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

100

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST "ROADS AND STREAMS" WITH NORTH IN THE DIRECTION OF THE ARROW, AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SHOW AN "X" MEANS OF AN "H". THE WELL LOCATION IN THE 20' SCALE SKETCH ALSO SHOWS "THE WELL LOCATION MAP."

[illegible][illegible]

DATE REC'D 10/19/79
SEQUENCE NO. 2411
BARRA USE ONLY

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

DATE RECEIVED (BARRA USE ONLY) OCT 30 1979
DATE WELL COMPLETED 10/19/79
DEPTH OF WELL 132
TO NEAREST FOOT

CE-75-3062
23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99

OWNER: Freedy, John
LAST NAME: Freedy
STREET OR RFD: 9108 Abigail Drive
POST OFFICE: Baltimore, Maryland

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING
DESCRIPTION OF ADDITIONAL SHEETS IF NECESSARY

FEET	THICKNESS	DESCRIPTION
0/2		top soil
2/38		yellow sand-clay-gravel
38/78		red-white-gray clay
78/92		white clay-sand
92/105		red-white clay
105/125		yellow-white clay
125/132		coarse white-gray sand

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT C M BENTONITE CLAY B C
NO. OF BAGS NO. OF POUNDS
GALLONS OF WATER NO ANNULAR SPACE
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 48 TO 54 FT.

CASING RECORD
Casing Type: S T C O PL OT
STEEL CONCRETE PLASTIC OTHER
MAIN CASING NOMINAL DIAMETER TOTAL DEPTH
CASING TOP MAIN CASING OF MAIN CASING
TYPE (NEAREST INCH) (NEAREST FOOT)
S T 4 127

OTHER CASING IF USED
Diameter (Inch) Depth (Feet)
S T 2 125 127
SCREEN RECORD
Insert: S T B P H O
STEEL BRASS OPEN HOLE OR BRASS
PLASTIC OTHER
Depth (Nearest Foot)
S T 127 132

PUMPING TEST
HOURS PUMPED TO NEAREST WHOLE
PUMPING RATE
GALLONS PER MINUTE TO NEAREST GALLON 30
METHOD USED TO MEASURE PUMPING RATE DUCKBO
WATER LEVEL DISTANCE FROM PUMP TO POINT OF MEASUREMENT
BEFORE PUMPING 32
DURING PUMPING 65
WHEN PUMPING 22
TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX FOR PUMPING TEST)
A AIR C CENTRIFUGAL J JET
27 27 27
S SUBMERSIBLE

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE) A, C, J, P, S, T, D
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
CAPACITY:
GALLONS PER MINUTE (TO NEAREST GALLON) 31
PUMP HORSE POWER 37
PUMP COLUMN LENGTH (NEAREST FOOT) 43
CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
P ABOVE LAND SURFACE
B BELOW 50 51

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DIMENSIONS TO WELL.

House 15' x 22'

DRILLER'S SIGNATURE
DATE
CITY
STATE

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE 08/01/79
MO DA YR

PERMIT NUMBER - CE-73-3091

ISSUED TO DRILLER-

SHORE WELL DRILRS INC
CECILTON MD 21913

DRILLER
ID. NUMBER - 139

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY -

RITTENHOUSE, NORMAN
BURNT BARN RD
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID FOR 10
60 DAYS FROM DATE OF ISSUANCE
IF THE WELL IS NOT COMPLETED
THE ADMINISTRATION MAY IN 30 DAYS
RESERVE THE RIGHT TO RE-USE THE

THOMAS C. ANDREWS
COMMISSIONER
DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATION

OHM-13 (7-77)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATIONTAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-73-3091

FILL IN THE FOLLOWING

2625

SEQUENCE NO.
NRA USE ONLY1 2 3 (SEQ. NO.)
4 5 6 (FUND NUMBER IS TO BE PUNCHED
IN COLUMNS 5-6 ON ALL CARDS)DATE RECEIVED
(NRA USE ONLY)

AUG 01 1979

OWNER RITTENHOUSE, NORMAN
COL 15 LAST NAMESTREET OR RFD BURNT BARN RD.
COL 34POST OFFICE PLARYVILLE, MARYLAND
COL 57

LOCATION OF WELL

B 1 CONTINUED DRILLER INFORMATION

1 2 3 (SEQ. NO.)

DATE 7/24/79LICENSE NUMBER 138
77 80FIRST NAME DONALD S. NEWMANSIGNATURE Donald S. Newman

B 2 WELL INFORMATION

1 2 3 (SEQ. NO.)

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 10
4 5 6 7 8 9 10 11 12AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 1000
13 14 15 16 17 18 19 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)☐ F FARMING - AGRICULTURE - IRRIGATION☐ I INDUSTRIAL - COMMERCIAL - STATE AND FEDERAL GOVERNMENT☐ M MUNICIPAL WATER SUPPLY☐ P PRIVATE WATER COMPANY☐ S OTHER

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 150
21 22 23 24 25 26 27 28 29 30APPROXIMATE DIAMETER OF WELL 4 (INCHES)
31 32 33 34 35 36 37 38 39 40

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

☒ BORED (BY AUGER) ☐ DRIVEN☐ CABLE ☐ ROTARY (HYDRAULIC ROTARY)☐ REVERSE ROTARY ☐ DRIVE POINT

REPLACEMENT OR DEEPENDING WELLS (CIRCLE APPROPRIATE BOX)

☐ YES ☐ NO

WELL WILL BE USED FOR ALL AN EXISTING WELL

WELL WILL BE USED FOR ALL AN EXISTING WELL

WELL WILL BE USED FOR ALL AN EXISTING WELL

WELL WILL BE USED FOR ALL AN EXISTING WELL

WELL WILL BE USED FOR ALL AN EXISTING WELL

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WELL WILL BE USED FOR ALL AN EXISTING WELL

WELL WILL BE USED FOR ALL AN EXISTING WELL

B 3

1 2 3 (SEQ. NO.)

COUNTY Cecil
100 NOT APPROPRIATE COUNTY UNITSUBDIVISION 23SECTION 44 LOT 20NEAREST TOWN CHARLES TOWN
52MILES FROM TOWN (ENTER 0 IF IN TOWN) 5
73

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

☐ N NORTH ☐ E EAST ☐ N.E. NORTHEAST ☐ S.E. SOUTHEAST☐ S SOUTH ☐ W WEST ☐ N.W. NORTHWEST ☐ S.W. SOUTHWEST☒ BURNT BARN RD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

☐ N NORTH ☐ S SOUTH ☐ E EAST ☐ W WEST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)

1

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROAD, STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE RANGE FROM P.O. TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOW BY MEANS OF AN "X", THE WELL LOCATION IN THE SKETCH AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N

BURNT BARN RD

CROSSING BURNT RD

X

1070

650

107000

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6780
 (SEQ. NO.)
 (THIS NUMBER IS TO BE PUNCHED
 IN COLUMNS 3-6 ON ALL CARDS)

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
 WELL COMPLETION REPORT

DATE RECEIVED
 (WRA USE ONLY)

OCT 20 1979

10/22/79

DATE WELL COMPLETED

10/22/79

DEPTH OF WELL

70

22 (TO NEAREST FOOT) 20

DRILLER'S IDENTIFICATION NO.

00733091

OWNER Rittenhouse, Norman

STREET OR RFD Burnt Barn Road

POST OFFICE Perryville, Maryland

WELL LOG
 STATE THE KIND OF FORMATIONS PENETRATED, THEIR
 COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION OF FORMATIONS (USE ADDITIONAL SHEETS IF NECESSARY)
 FEET FROM TO
 0/2 top soil
 1/15 yellow-white clay
 15/30 red-white clay
 30/40 ft. gray clay-sand
 40/62 red-white-yellow clay
 62/70 coarse yellow-white sand

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
 YES ☒ NO ☐
 TYPE OF GROUTING MATERIAL (CIRCLE NO.)
 CEMENT ☒ BENTONITE CLAY ☐
 NO. OF BAGS 45-48 NO. OF POUNDS 45-48
 GALLONS OF WATER NO ANNULAR SPACE
 DEPTH OF GROUT SEAL (TO NEAREST FOOT)
 48 52 64 58

CASING RECORD

INSERT APPROPRIATE CODE BELOW
 STEEL ☒ CONCRETE ☐
 PLASTIC ☐ OTHER ☐
 MAIN CASING DIAMETER (TOP MAIN CASING) TOTAL DEPTH OF MAIN CASING
 (TYPE) (NEAREST INCH) (NEAREST FOOT)
 4 64 70

OTHER CASING (IF USED)

DIAMETER (INCH) DEPTH (FEET)
 FROM TO
 24 62 65

SCREEN RECORD

SCREEN TYPE (CIRCLE APPROPRIATE BOX)
 STEEL ☒ BRASS ☐ OPEN HOLE ☐
 PLASTIC ☐ OTHER ☐
 DEPTH (NEAREST INCH) (NEAREST FOOT)
 65 70

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS SEPTIC TANKS, AND/OR OTHER LAND MARKS
 INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.

PUMPING TEST

HOURS PUMPED TO NEAREST WHOLE
 PUMPING RATE (GALLONS PER MINUTE TO NEAREST WHOLE)
 METHOD USED TO MEASURE PUMPING RATE bucket
 WATER LEVEL (DISTANCE FROM LAND SURFACE)
 BEFORE PUMPING 18
 WHEN PUMPING 45
 TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)
 (FOR PUMPING TEST)
 A AIR ☐ B PERISTALTIC ☐
 C CENTRIFUGAL ☒ D ROTARY ☐
 J JET ☐ S SUBMERSIBLE ☐

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE)
 DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
 CAPACITY:
 GALLONS PER MINUTE (TO NEAREST GALLON)
 PUMP HORSE POWER
 PUMP COLUMN LENGTH (NEAREST FOOT)

CASING HEIGHT

(CIRCLE APPROPRIATE BOX) AND ENTER INCHES
 ABOVE ☒ BELOW ☐
 LAND SURFACE 1

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS SEPTIC TANKS, AND/OR OTHER LAND MARKS
 INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL.

Donald S. Newman

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 09/10/79
MO DA YR

PERMIT NUMBER- CE-73-3161

ISSUED TO DRILLER-

PRESTON & HAMILTON
115 N PARADISE
HAVRE DE GRACE MD 21078

DRILLER
ID. NUMBER- 112

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

GIBSON, GEORGE
MCMILLAN & COLLINS
NORTH EAST MD 21901

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
03/10/80. A WELL COMPLETION
REPORT MUST BE SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL

THOMAS L. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

1 7350
 2 3 4 (SEQ. NO.) 5
 (THIS NUMBER IS TO BE PUNCHED
 IN COLS. 3-5 ON ALL CARDS)

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
 APPLICATION FOR PERMIT TO DRILL WELL

CE 73-3161
 FIELD NO.

DATE RECEIVED
 (WRA USE ONLY)
 SEP 10 1979

OWNER Gibson George
 COL 15 LAST NAME
 STREET OR RFO c/o McMillen and Collins Builders
 COL 36
 POST OFFICE North East, MD. 21901
 COL 87

1 CONTINUED
 2 3 4 (SEQ. NO.) 5
 DATE 8-31-8
 LICENSE NUMBER 112
 77 80
 FIRST NAME Charles H. H-14ton, Jr.
 DRILLER LAST NAME
 SIGNATURE Charles H. H-14ton, Jr.

2 WELL INFORMATION
 3 4 5 (SEQ. NO.) 6
 MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 10
 8 1000
 AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 12
 14 20
 USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ HOME, SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
☐ OTHER
 MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 100
 24 28 FEET
 APPROXIMATE DIAMETER OF WELL 6
 8 10 INCHES

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
☒ HAND DRIVEN
☐ AIR DRIVEN
☐ AIR-REVERSED
☐ NOT ANY OF THESE
☐ OTHER

PLACEMENT OF DEEPER WELLS (CIRCLE APPROPRIATE)
☒ IN THE SAME LOCATION AS THE EXISTING WELL
☐ IN A NEW LOCATION
☐ IN A NEW LOCATION AND DEPTH

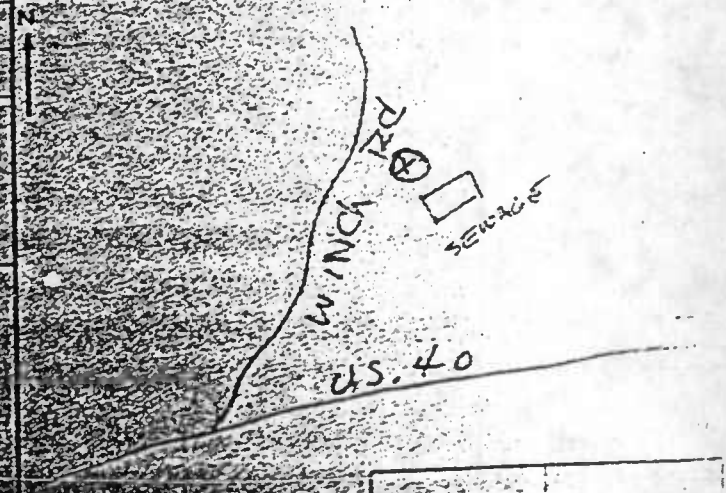
COPIES OF THIS PERMIT TO DRILL WELL (CIRCLE APPROPRIATE)
☒ ONE COPY TO THE DRILLER
☐ TWO COPIES TO THE DRILLER
☐ THREE COPIES TO THE DRILLER

APPROVED BY
 DATE
 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

3 LOCATION OF WELL
 4 5 6 (SEQ. NO.) 7
 COUNTY Cecil
 SUBDIVISION 22
 SECTION 44
 NEAREST TOWN Seaside
 DISTANCE FROM TOWN (ENTER 0 IF IN TOWN) 73

4 DIRECTION FROM TOWN
 (CIRCLE APPROPRIATE BOX)
☒ NORTH
☐ EAST
☐ NORTH-EAST
☐ SOUTH
☐ WEST
☐ NORTHWEST
☐ SOUTHWEST
 ROAD WHAT Winch
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
☒ NORTH
☐ SOUTH
☐ EAST
☐ WEST
 DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)
 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. INDICATE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING. SKETCH ALSO SHOW BY MEANS OF AN "X" THE WELL LOCATION IN THE AREA AND THE BOX NO. SET FROM THE WELL LOCATION MAP.



COPIES OF THIS PERMIT TO DRILL WELL (CIRCLE APPROPRIATE)
☒ ONE COPY TO THE DRILLER
☐ TWO COPIES TO THE DRILLER
☐ THREE COPIES TO THE DRILLER

[illegible]

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 09/14/79
MO DAY YR

PERMIT NUMBER- CE-73-3164

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE MD 21903

DRILLER
ID- NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

TANNER, ROBERT L
30 EDGEWATER AVE
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
03/15/80. IF WELL COMPLETION
REPORT HAS NOT BEEN SUBMITTED TO
THE ADMINISTRATION WITHIN 30 DAYS
AFTER COMPLETION OF THE WELL.

THOMAS C. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (if any) -

STATE OF MARYLAND

WATER RESOURCES ADMINISTRATION

TAKES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401

APPLICATION FOR PERMIT TO DRILL WELL

CE-73-3164

FILL IN THIS SECTION

B 1 0149
 T 3 3 (SEQ. NO.) 4
 (THIS NUMBER IS TO BE PUNCHED
 IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED
 (FOR USE ONLY)
 SEP 13 1979

OWNER Tanner, Robert L
 (SEE IS LAST NAME)

STREET OR RFD 30 Edgewater Ave.

POST OFFICE Charlestown, md.

B 3 CONTINUED
 T 3 3 (SEQ. NO.) 4
 DATE 9-4-79

DRILLER INFORMATION

FIRST NAME Vernon W Kirk DRILLER LAST NAME

SIGNATURE Vernon W Kirk

B 2
 T 3 3 (SEQ. NO.) 4
 MAXIMUM PUMPING RATE (GALLONS PER MINUTE)
300

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)
300

USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ DOMESTIC OR DOUBLE HOUSEHOLD USE ONLY

☐ FARMING AGRICULTURE, RECREATION

☐ INDUSTRIAL COMMERCIAL STATE AND FEDERAL GOVERNMENTS

☐ MINERAL WATER SUPPLY

☐ PRIVATE WATER COMPANY

APPROXIMATE DEPTH OF WELL 80

APPROXIMATE DIAMETER OF WELL 6

METHOD OF DRILLING USED (CIRCLE APPROPRIATE BOX)
☒ DRIVEN

OTHER

PLACEMENT OF DEEPER WELLS

PLACEMENT OF DEEPER WELLS

PLACEMENT OF DEEPER WELLS

PLACEMENT OF DEEPER WELLS

PLACEMENT OF DEEPER WELLS

PLACEMENT OF DEEPER WELLS

PLACEMENT OF DEEPER WELLS

PLACEMENT OF DEEPER WELLS

PLACEMENT OF DEEPER WELLS

B 3
 T 3 3 (SEQ. NO.) 4
 COUNTY Cecil

SUBDIVISION 23

SECTION 44

NEAREST TOWN Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN) 0

B 4
 T 3 3 (SEQ. NO.) 4
 DIRECTION FROM TOWN
 (CIRCLE APPROPRIATE BOX)

☒ NORTH ☐ EAST ☐ SOUTHWEST ☐ SOUTHEAST

☐ SOUTH ☐ WEST ☐ NORTHWEST ☐ SOUTHWEST

NEAR WHAT ROAD Edgewater Ave

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
☒ WEST ☐ EAST

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)
20

DRAW A SKETCH BELOW, SHOWING LOCATION OF WELL IN RELATION TO NEAREST TOWN, ROAD, AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. AND SHOW THE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING POINT ON THE SKETCH. ALSO SHOW, AT LEAST, AN "X" THE WELL LOCATION IN THE SKETCH AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

Sketch showing location of well in relation to nearest town, road, and streams with north in the direction of the arrow. And show the distance from well to nearest road junction or stream crossing point on the sketch. Also show, at least, an "X" the well location in the sketch and the box number from the well location map.

REPLACEMENT
 FIRST NAME

LOCATION OF WELL

DIRECTION FROM TOWN

(CIRCLE APPROPRIATE BOX)

NORTH EAST SOUTHWEST SOUTHEAST

SOUTH WEST NORTHWEST SOUTHWEST

NORTH EAST SOUTHWEST SOUTHEAST

SOUTH WEST NORTHWEST SOUTHWEST

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4578
SEQUENCE NO.
WRA USE ONLY

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD 21401
WELL COMPLETION REPORT

DATE RECEIVED
(WRA USE ONLY)
NOV 14 1979

11-1-79
DATE WELL COMPLETED
11/10/79

DEPTH OF WELL
60
22 (TO NEAREST FOOT) 20

DE-13-3164
DRILLER IDENTIFICATION NO. 192

OWNER Tanner, Robert L
STREET OR RD. 30 Edgewater Ave POST OFFICE Charleston, MD

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION	FEET	WATER BEARING
Top soil	0 2	
red clay	2 50	
white sand	50 60	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT ☒ BENTONITE CLAY ☐
GALLONS OF WATER 20
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 2 FT. TO 20 FT.

CASING RECORD
Casing Type ☒ ST ☐ CO ☐
INSCT. APPROPRIATE CODE BELOW
PLASTIC ☐ OTHER ☐
MAIN CASING TYPE ☒ ST ☐ FL ☐ OT
NOMINAL DIAMETER 6 TOTAL DEPTH 55
TOP (MAIN CASING) OF MAIN CASING (NEAREST INCH) (NEAREST FOOT)

OTHER CASING (IF USED)
DIAMETER (INCH) DEPTH (FEET)
FROM TO

SCREEN RECORD
SCREEN TYPE OR OPEN HOLE ☒ ST ☐ BR ☐ MO
OR BROWSE OPEN HOLE
RECORD BELOW
PLASTIC ☐ OTHER ☐
DEPTH (NEAREST WHOLE FOOT) 60

PUMPING TEST
HOURS PUMPED (TO NEAREST HOUR) 3
PUMPING RATE
GALLONS PER MINUTE TO NEAREST GALLON 25
WET-DO USED TO MEASURE PUMPING RATE Bailer
WATER LEVEL (DISTANCE FROM LAND SURFACE) BEFORE PUMPING 5
WHEN PUMPING 30
TYPE OF PUMPED USED (CIRCLE AREA OF AT LEAST 1" FOR PUMPING TEST)
A AIR ☐ B PISTON ☐ C CENTRIFUGAL ☐ D ROTARY ☒ J JET ☐ S SUBMERSIBLE ☐
Bailer

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, J, P, R, S, T, U)
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
CAPACITY:
GALLONS PER MINUTE (TO NEAREST GALLON) 30
PUMP HORSE POWER 30
PUMP COLUMN LENGTH (NEAREST FOOT) 40
CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
+ ABOVE LAND SURFACE
- BELOW 1 NEAREST FOOT

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).
12 ft. House
8 ft. X well
50 ft. Septic

WELLER SIGNATURE Kirk
DATE 11/10/79
WELLER SIGNATURE Wm. K. Kirk
DATE 11/10/79

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE - 10/22/79
MO DA YR

PERMIT NUMBER - CE-75-3203

ISSUED TO DRILLER -

DRILLER
ID. NUMBER - 252

DIFILIPPO, C JR.
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY -

NE WASTE WATER PLANT
CARPENTERS POINT RD
CHARLESTOWN MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A COMMERCIAL/INDUSTRIAL SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. PROVIDE OPENING FOR TAPE MEASUREMENT OF WATER LEVELS (MIN. INSIDE DIAM. OF ONE HALF INCH) SEALED BY REMOVABLE CAP/PLUG.
2. A TAP FOR RAW WATER SAMPLES MUST BE PLACED BEFORE WATER ENTERS A TREATMENT FACILITY, PRESSURE OR STORAGE TANK.
3. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID UNTIL
04/22/80. A RECD. LETTER
REPORT MUST BE SUBMITTED TO
THE DIVISION WITHIN 30 DAYS
OF COMPLETION OF THE WELL

GROUNDWATER APPROPRIATION
PERMIT NUMBER - CE79GA021

THOMAS G. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

1658
 DATE RECEIVED
 (PUNCH HERE TO BE PUNCHED
 IN CASE OF A LOSS ON ALL CARDS)

STATE OF MARYLAND
 WATER RESOURCES ADMINISTRATION
 JAMES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
 APPLICATION FOR PERMIT TO DRILL WELL

CE-73 3203
 FILE IN THIS OFFICE

DATE RECEIVED
 (PUNCH HERE TO BE PUNCHED
 IN CASE OF A LOSS ON ALL CARDS)
 001 19 1979

OWNER COL 15 LAST NAME
 North East Water Plant
 Street COL 26
 Charlestown, Md.
 POST OFFICE COL 27

DRILLER INFORMATION
 B 31 CONTINUED
 DATE 10-9-79
 LICENSE NUMBER 250
 FIRST NAME CONSTANTINE
 LAST NAME DiFilippo
 SIGNATURE Constantine DiFilippo

WELL INFORMATION
 B 2
 MAXIMUM PUMPING RATE (GAL. PER MIN.) 20
 AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 8000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
☐ TEST

APPROXIMATE DEPTH OF WELL 60

APPROXIMATE DIAMETER OF WELL 6

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
☐ HAND DRIVEN
☐ AIR DRIVEN
☐ ROTARY
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

REMARKS OR DEEPEST WELLS (CIRCLE APPROPRIATE BOX)
☐ NEW WELL
☐ EXISTING WELL
☐ OTHER

LOCATION OF WELL
 B 3
 COUNTY Cecil
 SUBDIVISION 23
 SECTION 44
 NEAREST TOWN CHARLES TOWN
 MILES FROM TOWN CENTER 2

DIRECTION FROM TOWN
 B 4
 NORTH EAST NORTHWEST SOUTH
 NEAR WHAT ROAD Carpenter Point Rd
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) N S E W
 DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 34

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. AND GIVE THE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN IN SKETCH. ALSO SHOW BY MEANS OF AN "X", THE WELL LOCATION IN THE SKETCH AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

Sketch showing location of well in relation to nearest roads and streams. The sketch shows a road labeled "Carpenter Point Rd" and a stream labeled "Potters Run". The well is located at the intersection of the road and stream, marked with an "X". The distance from the well to the nearest road junction is 34 feet. The sketch also shows the location of the well in relation to the nearest stream crossing, which is 34 feet away. The sketch is drawn with North at the top.

Sketch showing location of well in relation to nearest roads and streams. The sketch shows a road labeled "Carpenter Point Rd" and a stream labeled "Potters Run". The well is located at the intersection of the road and stream, marked with an "X". The distance from the well to the nearest road junction is 34 feet. The sketch also shows the location of the well in relation to the nearest stream crossing, which is 34 feet away. The sketch is drawn with North at the top.

Sketch showing location of well in relation to nearest roads and streams. The sketch shows a road labeled "Carpenter Point Rd" and a stream labeled "Potters Run". The well is located at the intersection of the road and stream, marked with an "X". The distance from the well to the nearest road junction is 34 feet. The sketch also shows the location of the well in relation to the nearest stream crossing, which is 34 feet away. The sketch is drawn with North at the top.

1042
SEQUENCE NO.
(PRIVATE ONLY)
DATE RECEIVED
(FOR USE ONLY)
MAR 05 1980

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAVES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS FORM
COUNTY
NUMBER

DEPTH OF WELL

PERMIT NO. FROM MARYLAND DEPT. OF ENVIRONMENTAL & NATURAL RESOURCES
11-73-3203

DATE WELL COMPLETED
11/12/79

100
(TO NEAREST FOOT)

DRILLERS IDENTIFICATION NO. 241

1777279

OWNER: Waste Water Plant
LAST NAME: Carpenters
STREET OR RD: Point Road

FIRST NAME: Charlestown, MD
POST OFFICE

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION	FEET	OTHER WATER BEARING
gravel	0-25	
clay yellow	25-30	
clay orange	30-60	
gravel	60-62	
white sand	62-93	
gravel water		
beaming		
white sand		
decomposed		
top of sand		
translucent		
light yellow		
clay		
bottom		

GROUTING RECORD
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
YES ☒ NO ☐
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT ☒ BENTONITE CLAY ☐
NO. OF BAGS 28 NO. OF POUNDS 2744
GALLONS OF WATER 140
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 0 FT. TO 80 FT.

CASING RECORD
Casing Type: ☒ STEEL ☐ CONCRETE
MAIN NOMINAL DIAMETER OF MAIN CASING (NEAREST INCH) 40
TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) 93
CASING TYPE: ☒ S ☐ T

OTHER CASING (IF USED)
A. DIAMETER (INCH) DEPTH (FEET)
B. DIAMETER (INCH) DEPTH (FEET)

SCREEN RECORD
SCREEN TYPE: ☒ WIRE ☐ PLASTIC
SCREEN SIZE: ☒ 1/2" ☐ 3/4" ☐ 1"

DEPTH (NEAREST WHOLE FOOT)
10 93 98

SCREEN TYPE: ☒ WIRE ☐ PLASTIC
SCREEN SIZE: ☒ 1/2" ☐ 3/4" ☐ 1"

SCREEN TYPE: ☒ WIRE ☐ PLASTIC
SCREEN SIZE: ☒ 1/2" ☐ 3/4" ☐ 1"

SCREEN TYPE: ☒ WIRE ☐ PLASTIC
SCREEN SIZE: ☒ 1/2" ☐ 3/4" ☐ 1"

PUMPING TEST
HOURS PUMPED (TO NEAREST HOUR) 11
PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON) 11
METHOD USED TO MEASURE PUMPING RATE air and submersible
WATER LEVEL: DISTANCE FROM LAND SURFACE
BEFORE PUMPING 18
WHEN PUMPING 88
TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX FOR PUMPING TEST)
☒ AIR ☐ HYDRAULIC ☐ TURBINE
☒ CENTRIFUGAL ☐ ROTARY ☐ OTHER (DESCRIBE BELOW)

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, J, P, R, S, T, O)
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
YES ☒ NO ☐
GALLONS PER MINUTE (TO NEAREST GALLON) 31
PUMP HORSE POWER 37
PUMP COLUMN LENGTH (NEAREST FOOT) 43
CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
☒ ABOVE ☐ BELOW

LOCATION OF WELL ON LOT
N. SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).
U.S. 46
Carpenters Rd
copy of 1 mile
well site
source plant
Charlestown

ORIGINAL

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE- 11/02/79
MD DA-YR

PERMIT NUMBER- CE-73-3216

ISSUED TO DRILLER-

DIFILIPPO, C JR
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

DRILLER
ID. NUMBER- 250

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY

PAYNE, BARBARA

NORTH EAST MD 21901

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF CHARLESTOWN

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

THE ABOVE CONDITIONS FROM CODES ON APPLICATION

THIS PERMIT IS VALID FOR
A PERIOD OF 30 DAYS
FROM DATE OF ISSUANCE
AND IS NOT TO BE USED FOR
ANY OTHER PURPOSES

THOMAS C. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

1989
DATE RECEIVED
MAY 1 1981

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
JAMES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS FORM
COUNTY
NUMBER 3-0111

DATE RECEIVED
MAY 1 1981
DATE WELL COMPLETED
01/17/80

DEPTH OF WELL
138
TO NEAREST FOOT

CE-73-3216
25

DRILLER'S IDENTIFICATION NO. 255

OWNER
PAYNE

POST OFFICE
BARBARA
NORTH EAST, MD.

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING (IF NECESSARY)

DESCRIPTION
fine sand
coarse sand
FROM 0 TO 100
100 TO 138

GROUTING RECORD

WELL NAME
CEMENT
NO. OF BAGS 15
NO. OF POUNDS 2550
DEPTH OF GROUT SEAL TO NEAREST FOOT
FROM 0 TO 130

CASING RECORD

CASING TYPE
CONCRETE
PLASTIC
OTHER

MAIN Casing
ST 6 133

OTHER CASING (IF USED)

OTHER CASING

SCREEN RECORD

SCREEN TYPE
STEEL
BRASS
OTHER

DEPTH TO NEAREST WHOLE FOOT

ST 133 138

C 3

PUMPING TEST

HOURS PUMPED TO NEAREST HOUR 2
PUMPING RATE
GALLONS PER MINUTE TO NEAREST GALLON 5
METHOD USED TO MEASURE PUMPING RATE
WATER LEVEL (DISTANCE FROM LAND SURFACE)
BEFORE PUMPING 75
WHEN PUMPING 80
TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)
A AIR
C CENTRIFUGAL
J JET
P PISTON
R ROTARY
S SUBMERSIBLE
T TURBINE
O OTHER DESCRIBE BELOW

PUMP INSTALLED

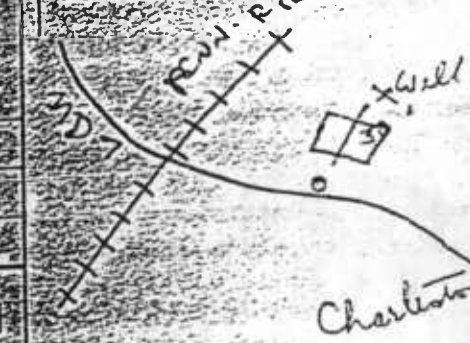
TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX)
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
CAPACITY
GALLONS PER MINUTE (TO NEAREST GALLON) 7 1/2
PUMP HORSE POWER 37 128
PUMP COLUMN LENGTH (NEAREST FOOT) 43

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

ABOVE
BELOW
LAND SURFACE
NEAREST FOOT

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES MEASUREMENTS TO WELL



STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE 02/05/80
MD DA YR

PERMIT NUMBER CE-73-3290

ISSUED TO DRILLER-

DIFILIPPO, C JR
5 BRINTON WAY, GLEN KYLE
NEWARK DE 19711

DRILLER

ID. NUMBER- 250

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

CAMPBELL, WILLIAM R
88 SIMMONS LA
PERRYVILLE MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF PERRYVILLE

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL REPLACE A WELL WHICH WILL BE A STANDBY.

SPECIAL CONDITIONS

VIOLATION OF ANY OF THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

1. LOCATE WELL AT LEAST 50 FT. FROM ANY SEWAGE DISPOSAL SYSTEM.

2. COMPLY WITH ALL LOCAL, STATE AND FEDERAL CODES ON APPLICATION

THIS PERMIT IS VALID FOR THE
DRILLING OF ONE WELL ONLY
AND MUST BE COMPLETED
WITHIN 30 DAYS
OF THE COMPLETION OF THE WELL

THOMAS E. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG. ANNEAPOLIS, MARYLAND 21403
APPLICATION FOR PERMIT TO DRILL WELL

73-3290

1645
DATE RECEIVED (FEB 04 1980)
FEB 04 1980

OWNER: Campbell William
STREET OR RFD: 88 Simmons Lane
POST OFFICE: Perryville Maryland

DRILLER INFORMATION
DATE: 1-29-80
LICENSE NUMBER: 250
CONSTANTINE, D. Lippo
CHRISTIAN, D. Lippo

WELL INFORMATION
MAXIMUM PUMPING RATE (GALLONS PER MINUTE): 12
GRADE DAILY QUANTITY NEEDED (GALLONS PER DAY): 12

USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING, AGRICULTURE, IRRIGATION
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT
☐ MUNICIPAL WATER SUPPLY
☐ PRIVATE WATER COMPANY
☐ OTHER

APPROXIMATE DEPTH OF WELL: 200
APPROXIMATE DIAMETER OF WELL: 6 (NEAREST INCH)

TYPE OF MOTOR OR ENGINE USED (CIRCLE APPROPRIATE BOX)
☐ ELECTRIC
☐ GASOLINE
☐ DIESEL
☐ OTHER

TYPE OF DRIVE (CIRCLE APPROPRIATE BOX)
☐ BELT DRIVE
☐ SHAFT DRIVE
☐ OTHER

TYPE OF WELL (CIRCLE APPROPRIATE BOX)
☐ ARTESIAN
☐ NON-ARTESIAN
☐ OTHER

TYPE OF WELL (CIRCLE APPROPRIATE BOX)
☐ ARTESIAN
☐ NON-ARTESIAN
☐ OTHER

TYPE OF WELL (CIRCLE APPROPRIATE BOX)
☐ ARTESIAN
☐ NON-ARTESIAN
☐ OTHER

TYPE OF WELL (CIRCLE APPROPRIATE BOX)
☐ ARTESIAN
☐ NON-ARTESIAN
☐ OTHER

TYPE OF WELL (CIRCLE APPROPRIATE BOX)
☐ ARTESIAN
☐ NON-ARTESIAN
☐ OTHER

TYPE OF WELL (CIRCLE APPROPRIATE BOX)
☐ ARTESIAN
☐ NON-ARTESIAN
☐ OTHER

LOCATION OF WELL
COUNTY: Cecil
SUBDIVISION: 25
SECTION: 44
NEAREST TOWN: Perryville
MILES FROM TOWN (ENTER 0 IF IN TOWN): 1
DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)
NORTH, EAST, SOUTH, WEST, NORTHWEST, SOUTHWEST, SOUTHEAST, SOUTHWEST
U.S. Rt 40
DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX): 1000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST ROAD AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. AND DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OF STREAM CROSSING SHOWN BY MEANS OF AN "X". THE WELL LOCATION IN THE SKETCH AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



BOX NUMBER: 1070
DATE: 1-29-80
TIME: 10:00
WELL NUMBER: 70760000
WELL DEPTH: 200
WELL DIAMETER: 6
WELL TYPE: ARTESIAN
WELL STATUS: ACTIVE

3445
SEQUENCE NO.
(PMA USE ONLY)
THIS NUMBER IS TO BE PUNCHED
IN COLUMNS 3 & 4 ON ALL CARDS

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS FOR
COUNTY
NUMBER

DATE RECEIVED
(PMA USE ONLY)
APR 14 1980

DATE WELL COMPLETED
2/5/80
020580

DEPTH OF WELL
220
(TO NEAREST FOOT)

PERMIT NO. (PMA USE ONLY)
73-3290
28 29 30 31 32 33 34 35 36 37 38 39 40

DRILLERS IDENTIFICATION NO. 1250

OWNER CAMPBELL
LAST NAME
STREET OR R.F.D. 87 SIMONS LANE
POST OFFICE PERRYVILLE

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (SEE ADDITIONAL SHEETS IF WELL DEEP)	FEET FROM	TO	CHECK IF WATER BEARING
topsoil + clay	0	45	
lt gray granite	45	100	
dk granite	100	220	

GROUTING RECORD
WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT (CM) BENTONITE CLAY (BC)
NO. OF BAGS 12 NO. OF POUNDS 1104
DEPTH OF WATER 60
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 0 FT. TO 59 FT.
HEIGHT OF IF FROM SURFACE

CASING RECORD
Casing Types (CIRCLE APPROPRIATE CODE)
INSTEAD OF CODE BELOW
CONCRETE (CO) PLASTIC (PE) OTHER (OT)
MAIN NOMINAL DIAMETER OF MAIN CASING
CASING NOMINAL DIAMETER OF MAIN CASING
TYPE INCHES INCHES
ST 6 59
60 61 62 63 64 65 66 67 68 69 70

OTHER CASING (IF USED)
DIAMETER INCHES DEPTH (FEET)
INCHES FEET

SCREEN RECORD
SCREEN TYPE (CIRCLE APPROPRIATE CODE)
STEEL (ST) BRASS (BR) COPPER (CO) IN. OR BRONZE (BZ)
PLASTIC (PE) OTHER (OT)

DEPTH (NEAREST WHOLE FOOT)
220

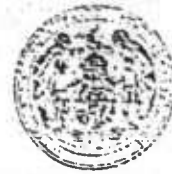
APPROPRIATE BOXES
CHECK BOXES FOR
WELL TYPE
WELL DEPTH
WELL LOCATION
WELL CONSTRUCTION
WELL EQUIPMENT
WELL RECORDS

PUMPING TEST
HOURS PUMPED (TO NEAREST HOUR) 3
PUMPING RATE
GALLONS PER MINUTE TO NEAREST GALLON 5
METHOD USED TO MEASURE PUMPING RATE Analytical
WATER LEVEL (DISTANCE FROM LANE SURFACE)
BEFORE PUMPING 70
WHEN PUMPING 150
TYPE OF PUMPED USED (CIRCLE APPROPRIATE TYPE)
AIR (A) PISTON (P) THERMAL (T)
CENTRIFUGAL (C) ROTARY (R) OTHER DESCRIBE BELOW
JET (J) SUBVERSIBLE (S)

PUMP INSTALLED
TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, J, P, N, S, T, U)
ORILLER WILL INSTALL PUMP
(CIRCLE APPROPRIATE BOX)
CAPACITY
GALLONS PER MINUTE (TO NEAREST GALLON) 10
PUMP HORSE POWER 3/4
PUMP COLUMN LENGTH (NEAREST FOOT) 200
CASING HEIGHT (CIRCLE APPROPRIATE BOX)
ABOVE (A) BELOW (B)
LAND SURFACE (L) INCEP CASING HEIGHT (I)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).
U.S. 40
W. 105.5

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES OFFICE BUILDING, ANNAPOLIS, MARYLAND



PERMIT TO DRILL WELL

ISSUE DATE 05/28/80
NO. DR 518

PERMIT NUMBER CE-73-3378

ISSUED TO DRILLER-

KIRK, VERNON W
RFD 1
PERRYVILLE, MD 21903

DRILLER
ID. NUMBER- 159

THE ABOVE NAMED DRILLER IS HEREBY AUTHORIZED TO DRILL A WELL
TO BE OWNED BY-

LEWIS, LINDA

NORTH EAST MD

THIS WELL IS TO BE LOCATED IN CECIL COUNTY,
NEAR THE TOWN OF NORTH EAST

THE WATER IS TO BE USED FOR A DOMESTIC SUPPLY.

THIS WELL WILL NOT REPLACE ANOTHER WELL.

SPECIAL CONDITIONS

FAILURE TO COMPLY WITH THE FOLLOWING CONDITIONS WILL CAUSE THIS PERMIT TO BECOME NULL AND VOID.

NONE

THIS PERMIT IS VALID UNTIL
12/31/80. A RENEWAL APPLICATION
REPORT MUST BE SUBMITTED TO
THE COMMISSIONER WITHIN 30 DAYS
OF THE EXPIRATION OF THE PERMIT.

THOMAS C. ANDREWS
DIRECTOR, MARYLAND
WATER RESOURCES
ADMINISTRATION

EMERGENCY NO. (IF ANY)

STATE OF MARYLAND

WATER RESOURCES ADMINISTRATION

TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401

APPLICATION FOR PERMIT TO DRILL WELL

WRA PERMIT NUMBER

CE-73-2480 73-3480

FILL IN THIS FORM COMPLETELY

1-2-3 (SEQ. NO.) 6
(THIS NUMBER IS TO BE RECORDED
IN COLS. 3-6 ON ALL CARDS)DATE RECEIVED
(WRA USE ONLY)

8/4/80

OWNER

Vickers, Eugene F

COL 18 LAST NAME

STREET
OR RFO

109 Cecil Ave

COL 38

POST
OFFICE

Holloway Beach Charlestown, Md

COL 57

014

FIRST NAME

COL 34

LOCATION OF WELL

B-13

B 1 CONTINUED

1-2-3 (SEQ. NO.) 6

DATE 8-4-80

LICENSE
NUMBER

159

77

80

Vernon

W. Kirk

DRILLER

LAST NAME

SIGNATURE

Vernon Kirk

WELL INFORMATION

B 2

1-2-3 (SEQ. NO.) 6

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

3

12

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

300

20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)☐ FARMING, AGRICULTURE, IRRIGATION☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.☐ MUNICIPAL WATER SUPPLY

MUST HAVE STATE HEALTH DEPT. APPROVAL

☐ PRIVATE WATER CONTRACT☐ TEST

APPROXIMATE DEPTH OF WELL

80

26 FEET

APPROXIMATE DIAMETER OF WELL

6

NEAREST INCH

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

☒ BORED (OR AUGERED)

JETTED

☐ DRIVEN

80-87 AIR-ROTARY

☐ AIR-PERCUSSION☐ ROTARY (HYDRAULIC ROTARY)☒ TABLE☐ REVERSE-ROTARY☐ DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STABOFT☐ THIS WELL WILL DEEPM AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE):

41

52

NOT TO BE FILLED IN BY DRILLER

(WRA USE ONLY)

PERMIT NUMBER

ENGINEER REVIEW
DISTRICT NO.

FORCE

WHITE
INITIALS
IN BOX

CONDITIONS

CE-73-3480

B 4

CONTINUED

1-2-3 (SEQ. NO.) 6

DATE 8-8-80

STATE HEALTH

COUNTY NAME

COUNTY NO.

Cecil

Wm. A. Sumner

APPROVED BY

DATE

8-8-80

SPECIAL CONDITIONS 8-89

(WRA USE ONLY)

B 5

CONTINUED

1-2-3 (SEQ. NO.) 6

B 3

1-2-3 (SEQ. NO.) 6

COUNTY

Cecil

(DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION

23

SECTION

44

LOT

46

NEAREST TOWN

Charlestown

MILES FROM TOWN (ENTER 0 IF IN TOWN)

0

76

77

78

B 4

1-2-3 (SEQ. NO.) 6

DIRECTION FROM TOWN

(CIRCLE APPROPRIATE BOX)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

N NORTH

E EAST

NE NORTHEAST

SE SOUTHEAST

S SOUTH

W WEST

NW NORTHWEST

SW SOUTHWEST

N

E

NE

SE

S

W

NW

SW

N

E

NE

SE

N

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NW

SW

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NE

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NW

SW

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CT 2849 SEQUENCE NO. (WRA USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED
30 DAYS AFTER WELL IS COMPLETED
COUNTY NUMBER 014

Date Received (WRA Use Only) 10-2-80
DATE WELL COMPLETED 10/16/80

Depth of Well 95
(TO NEAREST FOOT)

PERMIT NO. FROM PERMIT TO DRILL WELL
C-1-1-3480

OWNER Vickers, Eugenie F first name
STREET OR RFD 109 Cecil Ave TOWN Charlestown, Md
SUBDIVISION SECTION LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
Top soil	0	2	
Brown sand	2	20	
gravel	20	45	
red clay	45	75	
white clay	75	95	✓
white sand			

WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N
TYPE OF GROUTING MATERIAL CEMENT (CM) BENTONITE CLAY (BC)
NO. OF BAGS 5 NO. OF POUNDS 470
GALLONS OF WATER 30
DEPTH OF GROUT SEAL (to nearest foot) 25
from 11 TOP (enter 0 if from surface) to BOTTOM

CASING RECORD
casing types insert appropriate code below
ST STEEL CO CONCRETE PL PLASTIC OT OTHER
MAIN CASING TYPE ST 6 90
Nominal diameter (top/main) casing (nearest inch)
Total depth of main casing (nearest foot)

OTHER CASING (if used) diameter inch depth (feet) from to
EACH CASING

SCREEN RECORD
screen type or open hole insert appropriate code below
ST STEEL BR BRASS PL PLASTIC HO OPEN HOLE OT OTHER

DEPTH (nearest ft.) 90 95
SLOT SIZE 1/2
DIAMETER OF SCREEN 6 (NEAREST INCH)
GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX F

CIRCLE APPROPRIATE BOX
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS IDENT. NO. 159
DRILLERS SIGNATURE
SITE SUPERVISOR (sign of driller or journeyman for sitework if different from permittee)

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
TELESCOPE LOG OTHER DATA
CASING INDICATOR

PUMPING TEST
HOURS PUMPED (nearest hour) 2
PUMPING RATE (gal. per min. to nearest gal.) 15
METHOD USED TO MEASURE PUMPING RATE Bailer
WATER LEVEL distance from land surface BEFORE PUMPING 5
WHEN PUMPING 25
TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary J jet S submersible
Bailer

PUMP INSTALLED YES NO
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) Y N
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: (A, C, J, P, R, S, T, O))
CAPACITY GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height) (+) above (-) below
LAND SURFACE 1 foot

LOCATION OF WELL ON LOT:
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



ORIGINAL

EMERGENCY NO. (If any)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
 TAMES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

WRA PERMIT NUMBER
CE-73-3520

FILL IN THIS FORM COMPLETELY

B-0570

DATE RECEIVED
(WRA USE ONLY)
9/2/80OWNER Porter George

FIRST NAME

STREET OR RFD 388 Harrisville Rd

COL. 50

POST OFFICE Coloma md.

COL. 74

B 1 CONTINUED
1 2 3 (SEQ. NO.)

DRILLER INFORMATION

DATE Aug. 28, 1980 LICENSE NUMBER 38

MAURICE E. BROWN & SONS

SIGNATURE Larry A. Brown

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 5
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 450

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☐ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)☐ FARMING, AGRICULTURE, IRRIGATION☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT☐ MUNICIPAL WATER SUPPLY☐ PRIVATE WATER COMPANY☐ TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL 200 FEETAPPROXIMATE DIAMETER OF WELL 6" (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

☒ AUGERED OR AUGERED
☐ AIR-PERCUSSION
☐ REVERSE-ROTARY
☐ JETTED
☐ DRIVEN
☐ ROTARY HYDRAULIC ROTARY
☐ DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY☐ THIS WELL WILL DEEPEMED AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

 APPROPRIATION PERMIT NUMBER 1070
 ENGINEER REVIEW DISTRICT NO. 640
 FORCE 2 WRITE INITIALS IN 603
 CONDITIONS CE-73-3520
 70 71 72 73 74 75 76 77 78 79

B 4 CONTINUED

HEALTH DEPARTMENT APPROVAL

 1 2 3 (SEQ. NO.)
 41 ☐ STATE HEALTH
 DATE 080280
 COUNTY NAME Cecil
 APPROVED BY Dr. A. Summer
 COUNTY NO.

LOCATION OF WELL

B 3 1 2 3 (SEQ. NO.) CecilCOUNTY Cecil (DO NOT ABBREVIATE COUNTY NAME)SUBDIVISION 23SECTION 4 LOT 42NEAREST TOWN PerryvilleMILES FROM TOWN (ENTER 0 IF IN TOWN) 5

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

☐ NORTH ☐ EAST ☒ NORTHEAST ☐ SOUTHEAST
☐ SOUTH ☐ WEST ☐ NORTHWEST ☐ SOUTHWEST
NEAR WHAT ROAD Winch Rd.ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) ☒ NORTH ☐ SOUTH ☐ EAST ☐ WESTDISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 50

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

 N
 40' 20' 40' 20'
 Winch Rd.
 Rt. 40
 Perryville
BOX NUMBER 1070
640NORTH COORDINATE 045000EAST COORDINATE 1073000ELEVATION AT WELL HEAD (FEET) 65 66 67 68

ORIGINAL

2893

SEQUENCE NO.
(WRA USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED WITHIN
30 DAYS AFTER WELL IS COMPLETEDCOUNTY
NUMBER

B-0378

PERMIT NO.

FROM "PERMIT TO DRILL WELL"

CE-73-3520

Date Received
(WRA Use only)

10/1/80

Sept. 16, 1980

DATE WELL COMPLETED

CPS-1050

Depth of Well

120'

(TO NEAREST FOOT)

George

first name

TOWN

Colera, Md.

OWNER

Porter

STREET OR RFD

388 Harrisville Rd.

SUBDIVISION

SECTION

C 3

(See No.)

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

Check
if water
bearingClay
Sand
Clay
Granite0 10
10 45
45 55
55 120

WELL HAS BEEN GROUTED

(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT ☒ BENTONITE CLAY ☒

NO. OF BAGS 12 NO. OF POUNDS

GALLONS OF WATER 60

DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 60 ft.
(enter 0 if from surface)casing types
insert
appropriate
code
below

CASING RECORD

☒ STEEL☒ CONCRETE☒ PLASTIC☒ OTHERMAIN
CASING
TYPENominal diameter
top/main casing
(nearest inch)Total depth
of main casing
(nearest foot)☒ ST

6"

61

EACH
CASINGOTHER CASING (if used)
diameter inch depth (feet) toscreen type
or open hole

SCREEN RECORD

(insert
appropriate
code
below)☒ STEEL☒ BRASS☒ OPEN HOLE☒ PLASTIC☒ OTHEREACH
SCREEN

C 2

(See No.)

DEPTH (nearest ft.)

☒ HO

61 120

SLOT SIZE

DIAMETER
OF SCREEN(NEAREST
INCH)

GRAVEL PACK

IF WELL DRILLED WAS
FLOWING WELL CIRCLE BOX ☒

WRA USE ONLY

(NOT TO BE FILLED IN BY DRILLER)

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(E.R.O.S.)

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EMERGENCY NO. (If any)

WRA PERMIT NUMBER

2483

SEQUENCE NO. (WRA USE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

CE-73-3625

FILL IN THIS FORM COMPLETELY

REPLACEMENT

1 2 3 (SEQ. NO.) 4
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 5-6 ON ALL CARDS)DATE RECEIVED
(WRA USE ONLY)

10/15/80

OWNER

Newslinger, Greg

FIRST NAME

COL. 24

STREET
OR RFD

Carpenters Point Road

COL. 25

POST
OFFICE

Charles Town, Maryland

COL. 26

DRILLER INFORMATION

B 1

SEQ. FINISH

1 2 3 (SEQ. NO.) 4

DATE

10/14/80

LICENSE
NUMBER

138

77

80

FIRST NAME

DRILLER

LAST NAME

SIGNATURE

Donald S. Newman

WELL INFORMATION

B 2

SEQ. NO.

1 2 3 (SEQ. NO.) 4

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)

10

8

12

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)

1000

14

20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D

HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F

FARMING, AGRICULTURE, IRRIGATION

I

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT

M

MUNICIPAL WATER SUPPLY

P

PRIVATE WATER COMPANY

T

TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL

80

FEET

APPROXIMATE DIAMETER OF WELL

4

(NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERS)

JETTED

DRIVEN

AIR-ROTARY

AIR-PERCUSSION

ROTARY (HYDRAULIC ROTARY)

CABLE

REVERSE-ROTARY

DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

N

THIS WELL WILL NOT REPLACE AN EXISTING WELL

Y

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

S

THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D

THIS WELL WILL OPEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION
PERMIT NUMBERENGINEER REVIEW
DISTRICT NO.

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BOX
NUMBER

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625

NORTH
COORDINATEEAST
COORDINATEELEVATION AT
WELL HEAD (FEET)

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69 70 71 72

73 74 75 76

77 78 79 80

81 82 83 84

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STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 30 DAYS AFTER WELL COMPLETION
FILL IN THIS FORM COMPLETELY
COUNTY NUMBER REGA

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DATE RECEIVED (WRA USE ONLY) 11/19/80
DATE WELL COMPLETED 11/18/80
DEPTH OF WELL 81
PERMIT NO. FROM "PERMIT TO DRILL WELLS" CE-71-3625
DRILLERS IDENTIFICATION NO. 138

OWNER Newswanger, Greg FIRST NAME Perryville, Maryland
STREET OR RFD 168 Chestnut Pt. Rd. POST OFFICE

WELL LOG
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET	WATER BEARING
0/2 top soil		
2/60 yellow-white clay-sand		
60/81 coarse yellow-white sand		

WELL DESCRIPTION
GROUTING RECORD
YES ☒ NO ☐
WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
TYPE OF GROUTING MATERIAL (CIRCLE BOX)
CEMENT ☒ BENTONITE CLAY ☐
GALLONS OF WATER NO ANNULAR SPACE
DEPTH OF GROUT SEAL (TO NEAREST FOOT)
FROM 48 FT. TO 54 FT.
(ENTER 0 IF FROM SURFACE)

CASING RECORD
Casing Type: ☒ STEEL ☐ CONCRETE
Main Casing Type: ☒ S ☐ T
Nominal Diameter Top (Main) Casing (Nearest Inch): 4
Total Depth of Main Casing (Nearest Foot): 74

OTHER CASING IF USED:
Diameter (Inch): 2 1/2 Depth (Feet): 72
Type: ☒ S ☐ T

SCREEN RECORD
Screen Type or Open Hole: ☒ STEEL ☐ BRASS OR BRONZE ☐ OPEN HOLE
Slot Size: 15
Diameter of Screen (Nearest Inch): 3

DEPTH (NEAREST WHOLE FOOT)
FROM 76 TO 81
EACH SCREEN: 1 S 2 T
Slot Size: 15
Diameter of Screen (Nearest Inch): 3

CRUEL PACE
IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX ☒
WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)
TELESCOPE CASING ☒ LOG INDICATOR ☐

PUMPING TEST
HOURS PUMPED (TO NEAREST HOUR) 5
PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON) 15
METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL: DISTANCE FROM LAND SURFACE
BEFORE PUMPING 13
WHEN PUMPING 25
TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)
☒ AIR ☐ CENTRIFUGAL ☐ JET ☐ TURBINE ☐ OTHER (DESCRIBE BELOW)

PUMP INSTALLED
TYPE OF PUMP (CIRCLE APPROPRIATE LETTER)
DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)
CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON) 35
PUMP HORSE POWER 37
PUMP COLUMN LENGTH (NEAREST FOOT) 43

EXISTING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)
☒ ABOVE ☐ BELOW
LAND SURFACE (NEAREST FOOT) 1

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

CIRCLE APPROPRIATE BOXES
☒ A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
☐ B ELECTRIC LOG OBTAINED
☐ C TEST WELL CONVERTED TO PRODUCTION WELL
I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.
DRILLERS NAME Donald S. Newnam
PLEASE (PRINT) Donald S. Newnam
SIGNATURE Donald S. Newnam

ORIGINAL

EMERGENCY NO. (If any)		STATE OF MARYLAND WATER RESOURCES ADMINISTRATION TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401 APPLICATION FOR PERMIT TO DRILL WELL		WRA PERMIT NUMBER CE-73-3759	
B 1 1 2 3 (SEQ. NO.) 8946 (THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3-6 ON ALL CARDS)		SEQUENCE NO. (WRA USE ONLY)		FILL IN THIS FORM COMPLETELY	
DATE RECEIVED (WRA USE ONLY) 2/4/81		OWNER COL 15 LAST NAME L WASHINGTON		FIRST NAME COL 34	
STREET OR RFO COL 30 1723 Principio Road		POST OFFICE COL 67 Dorseyville, MD. 21903		COUNTY COL 41 Cecil	
B 1 1 2 3 (SEQ. NO.) CONTINUED		DRILLER INFORMATION		B 3 1 2 3 (SEQ. NO.) LOCATION OF WELL	
DATE 2/2/81		LICENSE NUMBER 112		SUBDIVISION 23	
FIRST NAME CHARLES		LAST NAME HAMILTON		SECTION 44	
SIGNATURE Charles H. Hamilton Jr.				NEAREST TOWN Perryville	
B 2 1 2 3 (SEQ. NO.) WELL INFORMATION		MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 10		DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)	
AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 1000		USE FOR WATER (CIRCLE APPROPRIATE BOX)		NEAR WHAT ROAD	
<input checked="" type="checkbox"/> D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)		<input type="checkbox"/> F FARMING, AGRICULTURE, IRRIGATION		ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)	
<input type="checkbox"/> I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT		<input type="checkbox"/> M MUNICIPAL WATER SUPPLY		DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)	
<input type="checkbox"/> P PRIVATE WATER COMPANY		<input type="checkbox"/> T TEST		30	
APPROXIMATE DEPTH OF WELL 100		APPROXIMATE DIAMETER OF WELL 6		DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEAREST TOWN, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW. AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX AND THE BOX NUMBER FROM THE WELL LOCATION MAP.	
METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)		B 4 1 2 3 (SEQ. NO.) HEALTH DEPARTMENT APPROVAL		NORTH COORDINATE 63 65 00	
<input checked="" type="checkbox"/> BORED (OR AUGERED) <input checked="" type="checkbox"/> JETTED <input checked="" type="checkbox"/> AIR-ROTARY <input checked="" type="checkbox"/> CABLE		Cecil		EAST COORDINATE 107 00 00	
REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX)		APPROVED BY Wm. A. Summer		ELEVATION AT WELL HEAD (FEET) 1100	
<input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL		DATE 021881		SPECIAL CONDITIONS 6-63	
<input checked="" type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED		B 5 1 2 3 (SEQ. NO.) ORIGINAL		83	
<input checked="" type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY					
<input type="checkbox"/> THIS WELL WILL DEEPEAN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEANED (IF AVAILABLE)					
NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)					
APPROPRIATION PERMIT NUMBER					
FORCE					
CONDITIONS					
HEALTH DEPARTMENT APPROVAL					
Cecil					
COUNTY NAME					
COUNTY NO.					
DATE					
APPROVED BY					
SPECIAL CONDITIONS 6-63					
B 5 1 2 3 (SEQ. NO.) ORIGINAL					

EMERGENCY TEMP. NO. IF ANY		STATE OF MARYLAND		DATA PROVIDED BY	
B 1		5042		SEQUENCE NO. WRA USE ONLY	
THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS		APPLICATION FOR PERMIT TO DRILL WELL		CE-73-3921	
DATE RECEIVED		5/27/81		LOCATION OF WELL	
8 (WRA USE ONLY) 13		OWNER INFORMATION		B 3	
CLARK		STANLEY		COUNTY	
LAST NAME		FIRST NAME		CECIL	
1357		W. POLASKI		SUBDIVISION	
ELKTON MD		21921		GREEN HALL	
TOWN		STATE		SECTION	
B 1		CONTINUED		NEAREST TOWN	
DRILLER INFORMATION		283		MILES FROM TOWN	
ROBERT SEWARD		5/22/81		B 4	
DRILLER'S NAME		DATE		DIRECTION OF WELL FROM TOWN (CIRCLE BOX)	
SIGNATURE		WELL INFORMATION		NEAR WHAT ROAD	
APPROX. PUMPING RATE (GAL. PER MIN)		10		ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)	
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)		600		150	
USE FOR WATER (CIRCLE APPROPRIATE BOX)		SHOW LOCATION OF WELL WITH AN "X" IN THIS BOX		DISTANCE FROM ROAD (CIRCLE APPROPRIATE BOX)	
<input checked="" type="radio"/> HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY) <input type="radio"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="radio"/> INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT) <input type="radio"/> PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL) <input type="radio"/> TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)		WRITE THE BOX NUMBER FROM THE MAP HERE 1080 630		DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION CHARLESTOWN GREEN DANK RD SEPTIC AREA HOUSE	
APPROXIMATE DEPTH OF WELL		100		NEAREST TOWN	
APPROXIMATE DIAMETER OF WELL		4		NEAREST ROAD	
Method of Drilling (circle one)		B 4		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL	
<input checked="" type="radio"/> BORED (OR AUGERED) <input type="radio"/> JETTED <input type="radio"/> JETTED & DRIVEN <input type="radio"/> AIR ROTARY <input type="radio"/> AIR PERCUSSION <input checked="" type="radio"/> ROTARY (HYDRAULIC) <input type="radio"/> CABLE <input type="radio"/> REVERSE ROTARY <input type="radio"/> DRIVE POINT <input type="radio"/> ROTARY <input type="radio"/> other		REPLACEMENT OR DEEPEENED WELLS (Circle Appropriate Box)		COUNTY NAME	
<input checked="" type="radio"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY <input type="radio"/> THIS WELL WILL DEEPEEN AN EXISTING WELL		<input type="radio"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY <input type="radio"/> THIS WELL WILL DEEPEEN AN EXISTING WELL		CECIL	
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEENED (IF AVAILABLE)		EHA SIGNATURE		COUNTY NO.	
Not to be filled in by driller (WRA USE ONLY)		Y. A. Summer		STATE HEALTH	
APPROX. PERMIT NUMBER		NORTH GRID		ELEV. (FT.)	
WRITE INITIALS IN BOX		630		1080	
FORCE		SPECIAL CONDITIONS		ORIGINAL	

B 1 1638

SEQUENCE NO.
WRA USE ONLYSTATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

CB-73-3987

THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS

LOCATION OF WELL B-05 15

DATE RECEIVED 6/23/81
8 (WRA USE ONLY) 13
OWNER INFORMATION

B 3

COUNTY

SUBDIVISION

SECTION

NEAREST TOWN

MILES FROM TOWN

STANCILL, B. INC.
LAST NAME 15 FIRST NAME 34
MT. Hill Road
STREET OR RFD 55
Perryville, Maryland
TOWN 57 STATE 76 ZIP

B 4

DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)DISTANCE FROM ROAD
(CIRCLE APPROPRIATE BOX)

B 1 CONTINUED

DRILLER INFORMATION

Donald S. Newman 138
DRILLER'S NAME 77 LICENSE NO. 80
Donald S. Newman 6/22/81
SIGNATURE DATE

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN) 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☐ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☒ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 80 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

Method of Drilling (circle one)

- BORED (OR AUGERED) JETTED JETTED DRIVEN
AIR ROTARY AIR PERCUSSION ROTARY (HYDRAULIC) ROTARY
CABLE REVERSE ROTARY DRIVE POINT ROTARY
other

REPLACEMENT OR DEEPEINED WELLS
(Circle Appropriate Box)

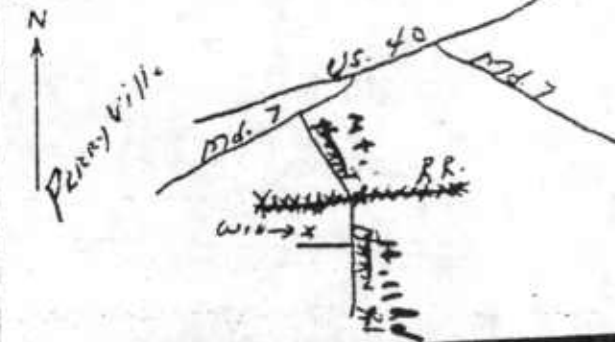
- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEIN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

Not to be filled in by driller (WRA USE ONLY)

APPROX. PERMIT NUMBER CB 81 GA PD 08
A E N S C W O C L U
FORCE INITIALS CONDITIONS C 1 7 3 - 3 9 8 7
IN BOX

SPECIAL CONDITIONS (WRA USE ONLY)

ORIGINAL

SHOW LOCATION OF WELL WITH
AN "X" IN THIS BOXWRITE THE BOX NUMBER
FROM THE MAP HEREDRAW A SKETCH BELOW SHOWING LOCATION OF WELL
IN RELATION TO NEARBY TOWNS AND ROADS AND
GIVE DISTANCE FROM WELL TO NEAREST ROAD
JUNCTION

B 4

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVALCecil
COUNTY NAME
EHA SIGNATURE
STATE HEALTH
NORTH 433 EAST 1074 ELEV. (FT)
GRID 30 55 GRID 57

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
 COUNTY
 NUMBER

C 1 **8886**
 (THIS NUMBER IS TO BE RUNCHED
 IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED
 (WRA USE ONLY)

9/1/81

DEPTH OF WELL

210

22 (TO NEAREST FOOT) 26

04-73-3987
 20 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

GRILLERS IDENTIFICATION NO.

SEP 4 1981

090181

OWNER **Stancil, Inc.**

STREET OR RFD **Mt. Hill Road**

POST OFFICE **Rox Perryville, Md.**

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
 COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (USE ADDITIONAL SHEETS
 IF NECESSARY)

FEET
 FROM TO CHECK IF
 WATER BEARING

0/60 yellow-white sand-clay
 60/90 green rock clay
 90/210 granite rock

X

GROUTING RECORD

WELL HAS BEEN GROUTED
 (CIRCLE APPROPRIATE BOX)

YES

NO

TYPE OF GROUTING MATERIAL (CIRCLE NO.)

CEMENT **C M**
 45 46

BENTONITE CLAY **B C**
 45 46

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER **NO ANNULAR SPACE**

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 48 FT. TO 54 FT.
 (ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES
 INSERT
 APPROPRIATE
 CODE
 BELOW

S T
 STEEL

C O
 CONCRETE

P L
 PLASTIC

O T
 OTHER

MAIN
 CASING
 TYPE

NOMINAL DIAMETER
 TOP (INCHES)

DEPTH OF MAIN CASING
 (FEET)

S T 6 90
 60 61 63 64 65 70

OTHER CASING (IF USED)

DIAMETER DEPTH (FEET)

None

SCREEN RECORD

SCREEN TYPE
 OR OPEN HOLE
 INSERT
 APPROPRIATE
 CODE
 BELOW

S T
 STEEL

B R
 BRASS

H O
 OPEN HOLE

P L
 PLASTIC

O T
 OTHER

C 2
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DEPTH (NEAREST WHOLE FOOT)

H O 90 210
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SLOT SIZE 1. 2. 3.

DIAMETER OF SCREEN 36 (NEAREST INCH)
 FROM TO

GRAVEL PACK IF WELL GRILLED WAS A FLOWING WELL CIRCLE NO. **B F**

WRA USE ONLY (NOT TO BE FILLED IN BY GRILLER)
 T 70 72 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

TELESCOPE CASING LOG INDICATOR OTHER DATA AVAILABLE

C 3
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR) 5

PUMPING RATE GALLONS PER MINUTE (TO NEAREST GALLON) 11

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING 20 (NEAREST FOOT)

WHEN PUMPING 80 (NEAREST FOOT)

TYPE OF PUMPED USED (CIRCLE APPROPRIATE BOX FOR PUMPING TEST)

A AIR **P** PERISTALTIC **T** TURBINE

C CENTRIFUGAL **R** ROTARY **O** OTHER (SPECIFY BELOW)

J JET **S** SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTERS
 NOT - SEE ABOVE: A, C, J, P, R, S, T, U)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

CAPACITY: GALLONS PER MINUTE (TO NEAREST GALLON) 30

PUMP HORSE POWER 37

PUMP COLUMN LENGTH (NEAREST FOOT) 43

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

+ ABOVE **-** BELOW

LAND SURFACE 1 (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND FOR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

Grange 550 550 X L

CIRCLE APPROPRIATE BOXES

A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

F TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

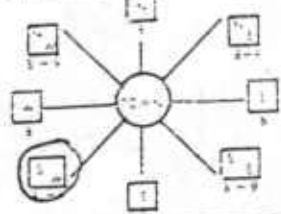
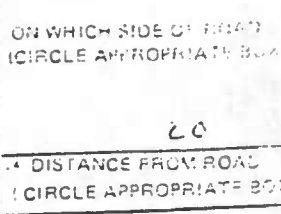
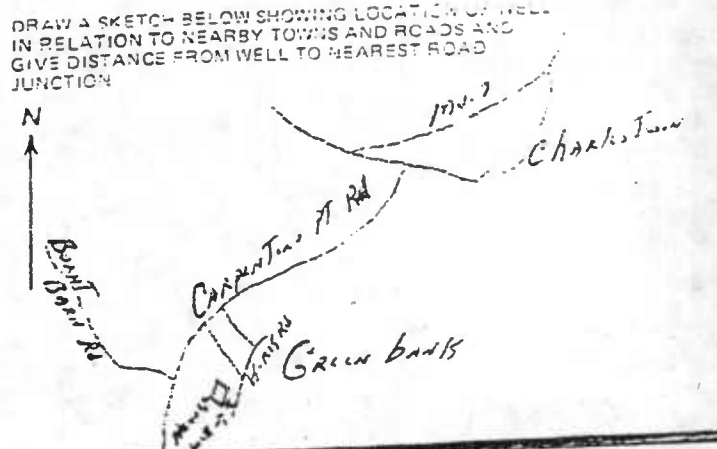
DRILLER'S NAME

Donald S. Newnam

Signature *Donald S. Newnam*

DATE

ORIGINAL

EMERGENCY TEMP NO IF ANY STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL. please print or type		CE-81-0018 81-0228 Fill in the following
B 1 1695 THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS	SEQUENCE NO. WRA USE ONLY DATE RECEIVED <u>2/16/82</u> 8 (WRA USE ONLY) 13 OWNER INFORMATION	LOCATION OF WELL COUNTY <u>Cecil</u> SUBDIVISION <u>Greenbank</u> SECTION <u> </u> LOT <u> </u> NEAREST TOWN <u>Charles Town</u> MILES FROM TOWN <u>2 1/2</u>
LAST NAME <u>KNISELY, EUGENE</u> FIRST NAME <u> </u> 13 <u>104 Kirk Road - Greenbank</u> 36 <u>Perryville, MD</u> <u>21903</u> TOWN 37 STATE ZIP		B 3 DIRECTION OF WELL FROM TOWN (CIRCLE BOX) 
B 1 CONTINUED DRILLER INFORMATION DRILLER'S NAME <u>DONALD S. NEUNAM</u> 138 37 LICENSE NO. <u>2/8/82</u> SIGNATURE <u>Donald S. Neunam</u> DATE		B 4 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) 
B 2 WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN) <u>10</u> AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) <u>1000</u> USE FOR WATER (CIRCLE APPROPRIATE BOX) <input checked="" type="checkbox"/> HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY) <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT) <input type="checkbox"/> PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL) <input type="checkbox"/> TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT) APPROXIMATE DEPTH OF WELL <u>70</u> FEET APPROXIMATE DIAMETER OF WELL <u>4</u> INCHES		SHOW LOCATION OF WELL WITH AN "X" IN THIS BOX WRITE THE BOX NUMBER FROM THE MAP HERE E <u>1080</u> N <u>620</u>
Method of Drilling (circle one) BORED (OR AUGERED) JETTED <u>JETTED - DRIVEN</u> AIR ROTARY AIR PERCUSSION ROTARY (HYDRAULIC) ROTARY CABLE REVERSE ROTARY DRIVE POINT ROTARY other _____		DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION 
REPLACEMENT OR DEEPEINED WELLS (Circle Appropriate Box) <input type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input checked="" type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY <input type="checkbox"/> THIS WELL WILL DEEPEIN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) _____		B 4 NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
Nor to be filled in by driller (WRA USE ONLY) APPROP. PERMIT NUMBER <u>GA PI</u> WRITE INITIALS CONDITIONS <u>CE 81-0228</u> FORCE <u>SM</u> IN BOX		COUNTY NAME <u>Cecil</u> COUNTY NO. _____ EHA SIGNATURE <u>Wm. R. Summer</u> NORTH <u>628</u> EAST <u>1080</u> ELEV. FT. _____ GRID 39 11 GRID 57
B 5 SPECIAL CONDITIONS _____ (WRA USE ONLY)		ORIGINAL

[illegible]

EMERGENCY TEMP. NO. IF ANY

OEP PERMIT NUMBER

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

please print or type

CE-81-0281

fill in this form completely

B 1 0401

SEQUENCE NO.
(OEP USE ONLY)(THIS NUMBER IS TO BE PUNCHED
IN COLS. 38 ON ALL CARDS)

Date Received

0 4 2 3 8 2
(OEP Use Only)

OWNER INFORMATION

S E W A R D

F 1 8 2 P R I N C I P I O F U R N A C E

P E R R Y V I L L E M D 1 2 1 1 9 2 1

C O N S T A N T I N E D I F I L I P P O

C O N S T A N T I N E D I F I L I P P O W E L L D R I L L I N G I N C .

2 3 5 B L U E B A L L R D .

C O N S T A N T I N E D I F I L I P P O

4 / 2 3 / 8 2

W E L L I N F O R M A T I O N

A P P R O X P U M P I N G R A T E (G A L . P E R M I N .) 6

A V E R A G E D A I L Y Q U A N T I T Y N E E D E D (G A L . P E R D A Y) 8 0 0

U S E F O R W A T E R (C I R C L E A P P R O P R I A T E B O X)

D H O M E (S I N G L E O R D O U B L E H O U S E H O L D U N I T O N L Y)

F F A R M I N G , L I V E S T O C K W A T E R I N G & A G R I C U L T U R A L

I I R R I G A T I O N

H I N D U S T R I A L , C O M M E R C I A L , S T A T E A N D F E D E R A L G O V .

O O T H E R (R E Q U I R E S A P P R O P R I A T I O N P E R M I T)

P P U B L I C O R P R I V A T E W A T E R C O M P A N Y (R E Q U I R E S

A P P R O P R I A T I O N P E R M I T A N D S T A T E H E A L T H D E P A R T M E N T

A P P R O V A L)

T T E S T , O B S E R V A T I O N , M O N I T O R I N G (M A Y R E Q U I R E

A P P R O P R I A T I O N P E R M I T)

A P P R O X I M A T E D E P T H O F W E L L 1 0 0

A P P R O X I M A T E D I A M E T E R O F W E L L 6

M E T H O D O F D R I L L I N G (C I R C L E O N E)

B O R E D (O R A U G E R E D) J E T T E D J E T T E D & D R I V E N

A I R R O T A R Y A I R P E R C U S S I O N R O T A R Y (H Y D R A U L I C R O T A R Y)

C A B L E R E V E R S E R O T A R Y D R I V E P O I N T

O T H E R

R E P L A C E M E N T O R D E E P E N E D W E L L S

(C I R C L E A P P R O P R I A T E B O X)

N T H I S W E L L W I L L N O T R E P L A C E A N E X I S T I N G W E L L

T H I S W E L L W I L L R E P L A C E A W E L L T H A T W I L L B E

A B A N D O N E D A N D S E A L E D

S T H I S W E L L W I L L R E P L A C E A W E L L T H A T W I L L B E U S E D

A S A S T A N D B Y

D T H I S W E L L W I L L D E E P E N A N E X I S T I N G W E L L

P E R M I T N U M B E R O F W E L L T O B E R E P L A C E D O R D E E P E N E D

O F A V A I L A B L E

N o t t o b e f i l l e d i n b y d r i l l e r (O E P U S E O N L Y)

A P P R O P . P E R M I T N U M B E R

W R I T E I N I T I A L S I N B O X

P E R M I T N O .

S P E C I A L C O N D I T I O N S

LOCATION OF WELL REPLACEMENT

B 3 COUNTY Cecil

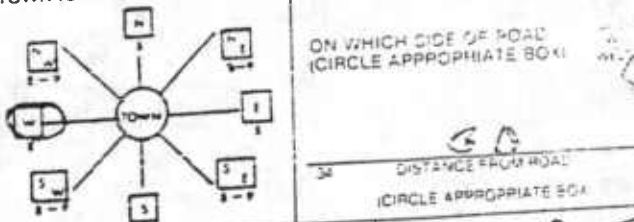
SUBDIVISION

SECTION 22 LOT

NEAREST TOWN PRINCIPIO FURNACE

MILES FROM TOWN

D I R E C T I O N O F W E L L F R O M T O W N (C I R C L E B O X)



SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1.

2.

3.

W R I T E T H E B O X N U M B E R F R O M T H E M A P H E R E

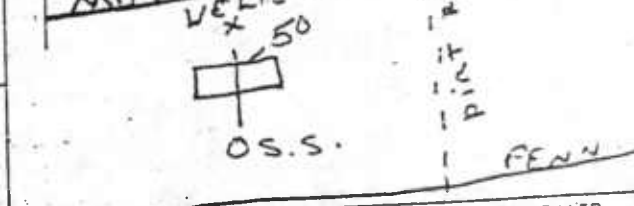
1070

630

D R A W A S K E T C H B E L O W S H O W I N G L O C A T I O N O F W E L L I N

R E L A T I O N T O N E A R B Y T O W N S A N D R O A D S A N D G I V E

D I S T A N C E F R O M W E L L T O N E A R E S T R O A D J U N C T I O N



B 4 NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

OEP SIGNATURE

DATE ISSUED

0 4 2 3 8 2

NORTH GRID 635

EAST GRID 1070

EXPIRES 1 0 2 3 8 2

ORIGINAL

CT 2794

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED
45 DAYS AFTER WELL COMPLETION

COUNTY
NUMBER

PERMIT NO.

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

Date Received
(OEP use only)

FEB 10 1963

DATE WELL COMPLETED

042882

Depth of Well

168

(TO NEAREST FOOT)

FROM PERMIT TO COMPLETION

CIB-111-1

81-0281

OWNER

Sine

First name

Seward

TOWN

Perryville, MD

STREET OR RFD

1532 Principio Furn. Rd.

LOT

SUBDIVISION

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use
additional sheets if needed)

FEET

FROM TO

Check
if water
bearing

fel det 0 15
clay & gravel 15 50
silt 50 60
lt gray granite 60 100
dk black granite 100 168

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

Y

N

TYPE OF GROUTING MATERIAL

CEMENT C

BENTONITE CLAY B

C

NO. OF BAGS

12

NO. OF POUNDS

1200

GALLONS OF WATER

60

DEPTH OF GROUT SEAL (to nearest foot)

from 0

ft to 69

ft

AS TOP (enter 0 if from surface)

Casing types
insert
appropriate
code
below

CASING RECORD

ST

CO

STEEL

CONCRETE

PL

OT

PLASTIC

OTHER

MAIN
CASING
TYPE

S T

Nominal diameter
(to nearest inch)

6

Total depth
of main casing
(nearest foot)

69

E
A
C
H
C
A
S
I
N
G

OTHER CASING (if used)
diameter (feet) to

screen type
or open hole

SCREEN RECORD

insert
appropriate
code
below

ST

BR

HO

STEEL

BRASS

OPEN

BRONZE

PL

OT

PLASTIC

OTHER

C 2

E
A
C
H
S
C
R
E
E
N

DEPTH (nearest ft.)

H O

69

168

SLOT SIZE

DIAMETER
OF SCREEN

(NEAREST
INCH)

GRAVEL PACK

IF WELL DRILLED WAS

FLOWING WELL CIRCLE BOX

F

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

W O

TELESCOPE
CASING

LOG
INDICATOR

OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min.
to nearest gal.)

METHOD USED TO
MEASURE PUMPING RATE

WATER LEVEL (distance from land surface
BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (for test)

A

P

T

Centrifugal

Rotary

Other

J

S

Submersible

jet

submersible

PUMP INSTALLED

YES

NO

DRILLER WILL INSTALL PUMP
(CIRCLE APPROPRIATE BOX)

Y

N

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE
LETTER IN BOX - SEE ABOVE
(A, C, J, P, R, S, T, D))

CAPACITY:

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box
and enter casing height)

above

LAND SURFACE

below

(nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

MDT P.E. Feb 11
XWELL
150
O.S.S.
1021
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1024
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1099
1100

CIRCLE APPROPRIATE BOX

A A WELL WAS ABANDONED AND SEALED

WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION

WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED
IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED
IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO
THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO.

250

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign of driller or journeyman
responsible for sitework if different from permittee)

ORIGINAL

EMERGENCY/TEMP. NO. IF ANY

STATE OF MARYLAND

APPLICATION FOR PERMIT TO DRILL WELL

please print or type

DEPARTMENT OF HEALTH

CE-81-0339

fill in this form completely

8 7 8454 SEQUENCE NO. (OEP USE ONLY)

THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS

Date Received

0 6 0 7 1 8 2

OWNER INFORMATION

Carpenter's Plumbing & Heating Co.

Carpenter's Plumbing & Heating Co.

Perryville, Md.

B 1 Continued

DRILLER INFORMATION

DONALD S. Newnam

Shore Water Drillers

P.O. Box 425 Cecilton, Md.

Donald S. Newnam

APPROX. PUMPING RATE (GAL. PER MIN.) 30

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 12000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☐ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☒ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 70 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

- ☐ BORED (OR AUGERED) ☐ JETTED ☒ JETTED-DRIVEN
- ☐ AIR ROTARY ☐ AIR PERCUSSION ☐ ROTARY (HYDRAULIC ROTARY)
- ☐ CABLE ☐ REVERSE ROTARY ☐ DRIVE POINT

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☒ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEMED AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER 0000000000

FORCE 5M WRITE INITIALS IN BOX PERMIT NO. 0000000000

SPECIAL CONDITIONS 43

B 3

LOCATION OF WELL Replacement

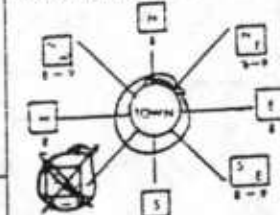
COUNTY Cecil

SUBDIVISION Carpenter's Pt.

SECTION 44 LOT 45

NEAREST TOWN Charles Town

MILES FROM TOWN 1.5



ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD 400 (CIRCLE APPROPRIATE BOX)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

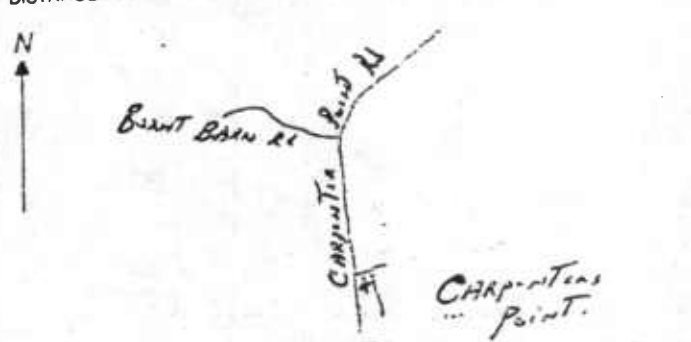
SOURCES OF DRILLING WATER

1. Town water
- 2.
- 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070 N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION: Charles Town



NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME Cecil

OEP SIGNATURE William A. Newnam

DATE ISSUED 0711482

NORTH GRID 62 EAST GRID 1079

EXPIRES 011383

ORIGINAL

CT 2852

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS PERMIT MUST BE OBTAINED
45 DAYS BEFORE THE WELL IS DRILLED
COUNTY
NUMBER

(THIS NUMBER IS TO BE PURCHASED
IN COLS. 3-6 ON ALL CAPS)

Date Received
(OEP use only)

DATE WELL COMPLETED

Depth of Well

AUG 25 1982

16/24/82

90
(TO NEAREST FOOT)

FROM PERMIT NO. 1-1311-1-1

81-0339

OWNER Carpenters Pt/ Water Co.

first name TOWN Perryville, Md.

STREET OR RFD Carpenters Pt.

SUBDIVISION Carpenters Pt.

SECTION

LOT 3

Not required for driven wells
STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (use additional sheets if needed)

FEET
FROM TO

Check
if water
bearing

0/3 yellow-white clay-sand
3/67 red-white-gray clay
67/70 yellow-white clay-sand
70/90 coarse yellow-white sand

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

yes ☒ Y ☐ N

TYPE OF GROUTING MATERIAL

CEMENT ☒ CM BENTONITE CLAY ☐ BC

NO. OF BAGS NO OF POUNDS

GALLONS OF WATER NO ANNULAR SPACE

DEPTH OF GROUT SEAL (to nearest foot)

from top (center of hole from surface) bottom 71 ft.

CASING RECORD

casing types
insert
appropriate
code
below

☒ ST ☐ CO
STEEL CONCRETE
☐ PL ☐ OT
PLASTIC OTHER

MAIN
CASING
TYPE

Nominal diameter
top/main casing
(nearest inch)

Total depth
of main casing
(nearest foot)

☒ S ☐ T 6 71

E
A
C
H
C
A
S
I
N
G

OTHER CASING (if used)
diameter inch depth (feet) from to

☒ S ☐ T 4 68 80

screen type
or openhole

SCREEN RECORD

insert
appropriate
code
below

☒ ST ☐ BR ☐ HO
STEEL BRASS OPEN
BRONZE HOLE
☐ PL ☐ OT
PLASTIC OTHER

E
A
C
H
S
C
R
E
E
N

DEPTH (nearest ft.)

☒ S ☐ T 80 90

SLOT SIZE 15

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK

IF WELL DRILLED WAS
FLOWING WELL CIRCLE BOX ☐ F

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W O
☒ T ☐ LOG ☐ OTHER DATA
TELESCOPE CASING INDICATOR

PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min.)

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 23

WHEN PUMPING 84

TYPE OF PUMP USED (for test)

☒ A air ☒ P piston ☐ T turbine
☐ C centrifugal ☐ R rotary ☐ O other (describe below)
☐ J jet ☐ S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) ☒ Y ☐ N

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE
LETTER IN BOX - SEE ABOVE
(A, C, J, P, R, S, T, O))

CAPACITY:
GALLONS PER MINUTE
(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box
and enter casing height)

☒ + above LAND SURFACE
☐ - below 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND/OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

CIRCLE APPROPRIATE BOX

☒ A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED
☐ E ELECTRIC LOG OBTAINED
☐ P TEST WELL CONVERTED TO PRODUCTION
WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED
IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED
IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO
THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign of owner or journeyman
responsible for sitework if different from permittee)

ORIGINAL

EMERGENCY TEMP. NO. IF ANY

STATE OF MARYLAND

APPLICATION FOR PERMIT TO DRILL WELL

please print or type

 DEF. 11-11-11
 09-81-0345
 0345

 B 1 5860 SEQUENCE NO.
 (OEP USE ONLY)

 THIS NUMBER IS TO BE PUNCHED
 IN COLS. 34 ON ALL CARDS

 Date Received 0 6 2 1 8 2
 (OEP Use Only) 13

OWNER INFORMATION

 BURTLOW WRI
 Last Name 13
 7315 CLAIRPENTERS RD
 Street or RFD 55
 NORTH ELAIST MD 1219011
 Town 37 State 76 Zip

B 1 Continued DRILLER INFORMATION

 CONSTANTINE DiFilippo 250E
 Driller's Name 77 License No. 80
 C. DiFilippo WELL DRILLING, INC.
 Firm Name
 2335 BLUE BALL RD. ELKTON
 Address
 Constantine DiFilippo 6/16/82
 Signature Date

B 2 WELL INFORMATION

 APPROX. PUMPING RATE (GAL. PER MIN.) 6 12
 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 800 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET 24

APPROXIMATE DIAMETER OF WELL 6 INCH 28

METHOD OF DRILLING (circle one)

- ☒ BORED (OR AUGERED) ☐ JETTED ☐ JETTED & DRIVEN
- ☒ AIR PERCUSSION ☐ ROTARY (HYDRAULIC ROTARY) ☐ DRIVE POINT
- ☐ CABLE ☐ REVERSE ROTARY
- Other: AIR-SET

REPLACEMENT OR DEEPEENED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☒ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEEN AN EXISTING WELL
- PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEENED (IF AVAILABLE) 52

Not to be filled in by driller (OEP USE ONLY)

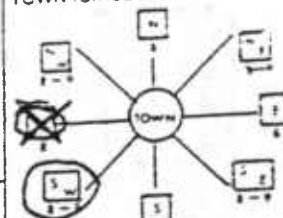
APPROX. PERMIT NUMBER 34 GAP 63

 FORCE 37 INITIALS IN BOX PERMIT NO. CE-81-0345
 70 71 72 73 74 75 76 77 78 79

B 3 LOCATION OF WELL Replacement

 COUNTY Cecil
 SUBDIVISION
 SECTION
 NEAREST TOWN CHARLESTOWN
 MILES FROM TOWN 1.5

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)


 CARPENTERS PT. RD
 NEAR APPROVED

 ON WHICH SIDE OF ROAD
 (CIRCLE APPROPRIATE BOX)
 500
 DISTANCE FROM ROAD
 (CIRCLE APPROPRIATE BOX)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

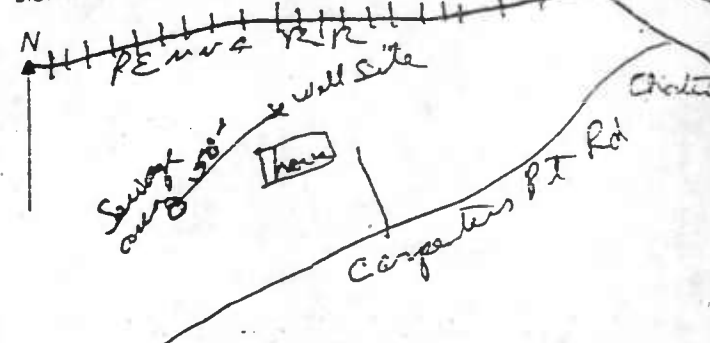
SOURCES OF DRILLING WATER

- WELL
-
-

WRITE THE BOX NUMBER FROM THE MAP HERE

 1080
 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



B 4

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

 Cecil
 COUNTY NAME

OEP SIGNATURE

DATE ISSUED

062182

NORTH GRID

631

EAST GRID

1080

EXPIRES

122182

ORIGINAL

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE FILED WITHIN 45 DAYS AFTER WELL IS COMPLETED

COUNTY Replacement

SEQUENCE NO. (OEP USE ONLY) 2859

(THIS NUMBER IS TO BE PUNCHED ON CDS, 3-6 ON ALL CARDS)

Date Received (OEP use only) FEB 10 1983

DATE WELL COMPLETED 07-13-82

Depth of Well 77
(TO NEAREST FOOT)

TOWN NORTH EAST MD.

OWNER BURTON W.R.

STREET OR RFD 735 CARPENTERS PT RD

SUBDIVISION LOT

SECTION 3

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (use additional sheets if needed)	FEET FROM	TO	CHECK if water bearing
topsoil	0	5	
clay	5	35	
sand fine	35	65	
sand coarse	65	77	

WELL HAS BEEN GROUTED (Circle Appropriate Box)
☒ Y ☐ N

TYPE OF GROUTING MATERIAL
CEMENT ☒ CM BENTONITE CLAY ☐ BC

NO. OF BAGS 15 NO. OF POUNDS 500

GALLONS OF WATER 75

DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft to 30 ft

CASING RECORD

casing types insert appropriate code below

☒ ST STEEL ☐ CO CONCRETE
☐ PL PLASTIC ☐ OT OTHER

MAIN CASING TYPE ☒ ST L₆ 70

Nominal diameter (toolman/casing) (nearest inch)

Total depth of main casing (nearest foot)

OTHER CASING (if used) diameter inch depth (feet) from to

EACH CASING

SCREEN RECORD

screen type or open hole insert appropriate code below

☒ ST STEEL ☐ BR BRASS ☐ HO OPEN HOLE
☐ PL PLASTIC ☐ OT OTHER

DEPTH (nearest ft.)

1 ☒ ST 70 77

2

3

SLOT SIZE #10

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK

IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX ☐ F

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) ☐

LOG INDICATOR ☐

W O ☐

TELESCOPE CASING ☐

OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour) 1

PUMPING RATE (gal. per min. to nearest gal.) 10

METHOD USED TO MEASURE PUMPING RATE air lift

WATER LEVEL distance from land surface BEFORE PUMPING 2'

WHEN PUMPING 5'

TYPE OF PUMP USED (for test)

☒ A air ☐ P piston ☐ T turbine
☐ C centrifugal ☐ R rotary ☐ O other design
☐ J jet ☐ S submersible

PUMP INSTALLED YES ☒ Y ☐ N

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: (A, C, J, P, R, S, T, O))

CAPACITY:
GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

☒ above LAND SURFACE (nearest foot)

☐ below

LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

A
N
D
PENN. RR.
X well site
50' H.
S.S. Carpenter Pt Rd. drive

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED THEREIN AND IN CONFORMANCE WITH PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT NO. 250

DRILLERS SIGNATURE Constantine D. F. Lope

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR: sign of driller or journeyman responsible for sitework if different from permittee

ORIGINAL

042-3327

SEQUENCE NO. (OEP USE ONLY)
0074

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

CE-81-9431

(THIS NUMBER IS TO BE PUNCHED IN COLUMNS ON ALL CARDS)

OCT 15 1982

Date Received

1 0 0 8 8 2

OWNER INFORMATION

RAYSON GLENDON E
337 POPULAR PT PERRYVILLE
PERRYVILLE MD 21102

8 3

LOCATION OF WELL

REPLACEMENT

COUNTY Cecil

SUBDIVISION

SECTION

NEAREST TOWN

Perryville

MILES FROM TOWN

3

8 1 Continued

DRILLER INFORMATION

CHARLES H. HAMILTON, JR
Preston and Hamilton
115 N. Paradise Road
Bayre de Grace, MD. 21078

Charles H. Hamilton Jr 9/7/82

APPROX. PUMPING RATE (GAL. PER MIN.) 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

- ☒ BORED OR AUGERED
- ☐ JETTED
- ☐ JETTED & DRIVEN
- ☐ AIR ROTARY
- ☐ AIR PERCUSSION
- ☐ ROTARY (HYDRAULIC ROTARY)
- ☐ REVERSE ROTARY
- ☐ DRIVE POINT
- ☐ Other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

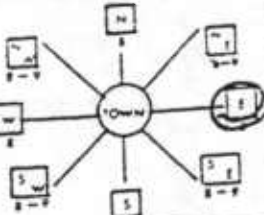
Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER

FORCE INITIALS IN BOX

PERMIT No. CE-81-0431

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Mountain Hill Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

1200

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

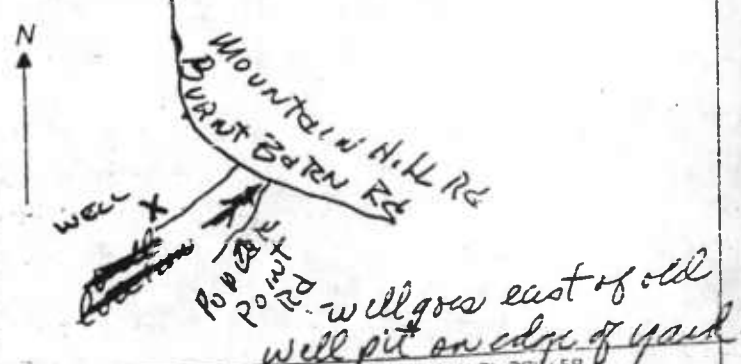
SOURCES OF DRILLING WATER

- 1.
- 2.
- 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

1070
620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

8 4

Cecil

OEP SIGNATURE

DATE ISSUED

10 11 82

NORTH GRID

629

EAST GRID

1075

EXPIRES

10 11 83

ORIGINAL

2950

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE FILED
AS DAYS AFTER PERMIT
COUNTY
NUMBER

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

Date Received
(OEP use only)

FEB 22 1993

DATE WELL COMPLETED

100282

Depth of Well

120

(TO NEAREST FOOT)

OWNER

Rayson

first name

Deenox

TOWN

Pungnick, Md

STREET OR RFD

337 Poplar RT

SUBDIVISION

SECTION

LOT

81-0431

WELL LOG
Not required for driven wells
STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH
THICKNESS AND IF WATER BEARING.

DESCRIPTION (Use
additional sheets if needed)

FEET
FROM TO

Check
if water
bearing

Brown sand 0 20
white sand 20 60
red clay 60 90
white clay 90 115
white sand 115 120

WELL HAS BEEN GROUTED

(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT ☒ BENTONITE CLAY ☒

NO. OF BAGS 4 NO. OF POUNDS 115

GALLONS OF WATER 10

DEPTH OF GROUT SEAL (to nearest foot)

from 0 to 115

(Enter 0 if from surface)

CASING RECORD

ST CO

STEEL CONCRETE

PL OT

PLASTIC OTHER

MAIN CASING TYPE

Normal diameter (tool/main/casing (nearest inch))

ST 6

Total depth of main casing (nearest foot)

115

OTHER CASING (if used)

diameter (inch) depth (feet) to

USE USER-20

SCREEN RECORD

ST BR HO

STEEL BRASS BRONZE OPEN HOLE

PL OT

PLASTIC OTHER

DEPTH (nearest ft.)

ST 115 - 120

EACH SCREEN

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

CIRCLE APPROPRIATE BOX

A A WELL WAS ABANDONED AND SEALED

WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION

WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED
IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED
IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO
THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 112

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR: sign of driller or journeyman

responsible for sitework if different from permittee

SLOT SIZE

DIAMETER OF SCREEN 6 (NEAREST INCH)

GRAVEL PACK

IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T I.E.R.O.S.) W O

TELESCOPE CASING LOG INDICATOR OTHER DATA

CASING HEIGHT (circle appropriate box and enter casing height)

LAND SURFACE

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

100' to 200' to house

New well

ORIGINAL

642 6561 GRAY

Pd. 11/4/82 - \$20.00 Receipt No. 436 - V&P

EMERGENCY/TEMP. NO. IF ANY

O&P PERMIT NUMBER

02-81-0473

THIS PERMIT IS VALID FOR 12 MONTHS

0068

SEQUENCE NO.
(O&P USE ONLY)STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type(THIS NUMBER IS TO BE PUNCHED
IN COLUMNS 3-6 ON ALL CARDS)

NOV 5

1982

Date Received

1 1 0 3 8 2

(O&P Use Only)

OWNER INFORMATION

GRAY E G
5911 MOUNTAIN HILL RD
PERRYVILLE MD 21903

B 1 Continued

DRILLER INFORMATION

Charles W. Hamilton Jr
Preston & Hamilton
115 N. Pease Rd
Perryville Md

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV.
☐ OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

- BORED (OR AUGERED) JETTED JETTED & DRIVEN
AIR PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE ROTARY DRIVE POINT
Air-Rot

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☒ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 52

Not to be filled in by driller (O&P USE ONLY)

APPROX. PERMIT NUMBER 03

WRITE
INITIALS
IN BOX

PERMIT NO. 02-81-0473

SPECIAL CONDITIONS 8-63

B 3

LOCATION OF WELL

COUNTY

Cecil

SUBDIVISION

SECTION

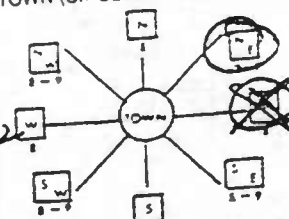
Perryville

NEAREST TOWN

2.5

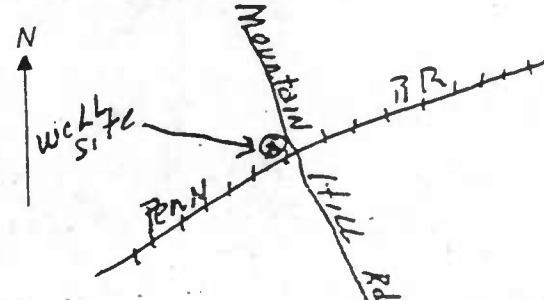
MILES FROM TOWN

Mountain Hill Rd

DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)125
DISTANCE FROM ROAD
(CIRCLE APPROPRIATE BOX)SHOW MAJOR FEATURES OF
BOX & LOCATE WELL
WITH AN X

SOURCES OF DRILLING WATER

1.
2.
3.
WRITE THE BOX NUMBER
FROM THE MAP HERE

1070
620DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

well goes at N. end of house near Prop. line

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

O&P SIGNATURE

Charles E. Smyser

DATE ISSUED

10382

NORTH GRID

635

EAST GRID

1074

EXPIRES

050383

ORIGINAL

2994

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

DATE RECEIVED
NOV 10 1982

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

Date Received
(OEP use only)

11-4-82
DATE WELL COMPLETED

Depth of Well

225

(TO NEAREST FOOT)

NOV 10 1982

110432

OWNER GRAY E.G.

FIRST NAME

TOWN PEKLYVILLE

81-0473

STREET OR RFD

591 MT. HILL RD.

SUBDIVISION

SECTION

C 3

WELL LOG
Not required for driven wells
STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (use
additional sheets if needed)

FEET
FROM TO

Check
if water
bearing

YELLOW
sand &
GRAVEL

0 75

HARD GRAY
GRANITE

75 225

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

☒ Y ☐ N

TYPE OF GROUTING MATERIAL

CEMENT ☒ BENTONITE CLAY ☐ C

NO. OF BAGS 20 NO. OF POUNDS 1750

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft to 80 ft

(Enter 0 if from surface)

CASING RECORD

ST ☒ CO ☐
STEEL CONCRETE

PL ☐ OT ☐
PLASTIC OTHER

MAIN CASING TYPE

☒ ST 6 80

OTHER CASING (if used)

diagram inch depth (feet) to

1 2 3 4 5 6 7 8 9 10

SCREEN RECORD

screen type or open hole

☒ ST ☐ BR ☐ HO
STEEL BRASS OPEN HOLE

☐ PL ☐ OT
PLASTIC OTHER

DEPTH (nearest ft.)

80 225

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 10

PUMPING RATE (gal. per min.
to nearest gal.)

METHOD USED TO
MEASURE PUMPING RATE water

WATER LEVEL (distance from land surface
BEFORE PUMPING 70

WHEN PUMPING 225

TYPE OF PUMP USED (for test)

☒ A ☐ P ☐ T

☐ C ☐ R ☐ O

☐ J ☐ S

☐ S

☐ S

☐ S

☐ S

☐ S

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CIRCLE APPROPRIATE BOX
☒ A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED
☐ E ELECTRIC LOG OBTAINED
☐ P TEST WELL CONVERTED TO PRODUCTION
WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED
IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED
IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO
THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 112

DRILLERS SIGNATURE Robert H. Hamthorpe

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign of driller or journeyman
responsible for sitework if different from permittee)

DIAMETER OF SCREEN (NEAREST INCH)

from to

GRAVEL PACK

IF WELL DRILLED WAS FLOWING WELL CIRCLE BOX ☐ F

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.P.O.S.) W O

TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMP INSTALLED YES ☒ NO ☐

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

IF DRILLER INSTALS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE

TYPE OF PUMP (WRITE APPROPRIATE
LETTER IN BOX - SEE ABOVE
(A, C, J, P, R, S, T, D))

CAPACITY:
GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box
and enter casing height)

☒ above ☐ below

LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND/OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

150'

40'

MT. HILL RD.

WELL

150'

40'

MT. HILL RD.

WELL

150'

40'

MT. HILL RD.

WELL

150'

40'

MT. HILL RD.

ORIGINAL

3426

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE FILED
45 DAYS AFTER WELL COMPLETION
COUNTY
NUMBER

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE Received

DATE WELL COMPLETED

Depth of Well
60
(TO NEAREST FOOT)

CE-91-0741

OWNER TRACK Dennis + Donna

STREET OR RFD 815 Martin Rd

SUBDIVISION

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use
additional sheets if needed)

FEET
FROM TO Check
if water
bearing

Topsoil 0 2
red clay 2 20
white clay 20 55
sand
white sand 55 60 ✓

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 5 NO. OF POUNDS 470

GALLONS OF WATER

DEPTH OF GROUT SEAL (to nearest foot)

from 2 to 25
(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
below

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)
S+ 6 55

OTHER CASING (if used)
diameter inch depth (feet) from to

SCREEN RECORD

screen type
or open hole
insert
appropriate
code
below

ST BR HO
STEEL BRASS OPEN
HOLE
PL PLASTIC OTHER

C2

DEPTH (nearest ft.)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51

SLOT SIZE 2 2 3
DIAMETER OF SCREEN 6 6 (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) WO 74 75 76
70 72 OTHER DATA
TELESCOPE CASING LOG INDICATOR

C3

HOURS PUMPED

PUMPING RATE (GAL PER MIN) 12

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (feet) BEFORE PUMPING 40

WHEN PUMPING 50

TYPE OF PUMP USED

A air P piston T turbine
C centrifugal R rotary O other
J jet S sumpers dip

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES
(CIRCLE) YES OR NO
IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O)
IN BOX - SEE ABOVE

CAPACITY, GALLONS PER MINUTE (to nearest gallon)

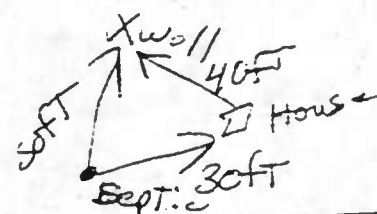
PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

LAND SURFACE 18

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 159

DRILLER SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

9/6/83 Rec- #1211 - EMERGENCY/TELEPHONE NO. IF ANY

15667 SEQUENCE NO. (OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OFF PERMIT NUMBER
CE-81-0773

THIS NUMBER IS TO BE PUNCHED
IN COLS. 34 ON ALL CARDS

Date Received 09/06/83
OWNER INFORMATION
Barbero, James
170 Mountain Hill Rd
Perryville, MD 21903

DRILLER INFORMATION
Donald S. Newman
Chase Well Drillers
Cecil, MD
9/1/83

WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.) 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
[D] HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
[F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
[I] INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
[P] PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
[T] TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 170 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)
Bored (or Augered) JETTED Jettied & Driven
AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY Drive-POINT
other Driven

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
[N] THIS WELL WILL NOT REPLACE AN EXISTING WELL
[Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
[S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
[D] THIS WELL WILL DEEPM AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)
APPROX. PERMIT NUMBER GAP
FORCE INITIALS PERMIT NO. CE-81-0773

SPECIAL CONDITIONS

LOCATION OF WELL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
COUNTY
SUBDIVISION
SECTION LOT
PENNYVILLE
MILES FROM TOWN (enter 0 if in town) 3.8

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
N W N E S E S W S
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
NEAR WHAT ROAD Mountain Hill Rd
DISTANCE FROM ROAD 200
ENTER FT. OR MI.

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL
Cecil
COUNTY NAME
OEP SIGNATURE
DATE ISSUED 09/07/83
NORTH GRID 630000
EAST GRID 1077000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. Town Cecil, MD
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION
Perryville
Mountain Hill Rd
Cecil, MD

ORIGINAL

3477

SEQUENCE NO. (OEP USE ONLY)

STATE OF MARYLAND

WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY

PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED

45 DAYS AFTER WELL COMPLETION

COUNTY

NUMBER

BL875

THIS NUMBER IS TO BE PUNCHED

IN COLUMNS 38 ON ALL CARDS

DATE RECEIVED

NOV 19 1983

DATE WELL COMPLETED

11/10/83

Depth of Well

175

(TO NEAREST FOOT)

FROM PERMIT NO.

CE-81-0773

OWNER

Barbero, James

STREET OR RFD

170 MC. Hill Road

SUBDIVISION

SECTION

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS

PENETRATED, THEIR COLOR, DEPTH,

THICKNESS AND IF WATER BEARING

DESCRIPTION (Use

additional sheets if needed)

FEET

FROM

TO

Check

if water

bearing

yellow clay-sand

0

65

gravel

65

130

white clay-sand

130

163

red-white-yellow

163

175

clay

yellow-white

sand

GROUTING RECORD

WELL HAS BEEN GROUTED

(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT

BENTONITE CLAY

NO OF BAGS

NO OF POUNDS

GALLONS OF WATER

NO ANNULAR SPACE

DEPTH OF GROUT SEAL (to nearest foot)

from

to

(enter 0 if from surface)

CASING RECORD

casing

types

insert

appropriate

code

below

ST

CO

STEEL

CONCRETE

PL

OT

PLASTIC

OTHER

MAIN

CASING

TYPE

Nominal diameter

top (main) casing

(nearest inch)

Total depth

of main casing

(nearest foot)

OTHER CASING (if used)

diameter

depth (feet)

from

to

SCREEN RECORD

screen type

or open hole

insert

appropriate

code

below

ST

BR

HO

STEEL

BRASS

OPEN

BRONZE

HOLE

PL

OT

PLASTIC

OTHER

DEPTH (nearest ft)

175

SLOT SIZE

15

DIAMETER

OF SCREEN

3

NEAREST

INCH

GRAVEL PACK

IF WELL DRILLED WAS

FLOWING WELL INSERT

F IN BOX 58

OEP USE ONLY

(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

W.Q.

74

75

76

TELESCOPE

LOG

CASING

INDICATOR

OTHER DATA

CIRCLE APPROPRIATE LETTER

A WELL WAS ABANDONED AND SEALED

WHEN THIS WELL WAS COMPLETED

E-ELECTRIC LOG OBTAINED

P-TEST WELL CONVERTED TO PRODUCTION

WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN

ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"

AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE

ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION

PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST

OF MY KNOWLEDGE.

DRILLERS IDENT. NO.

138

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

responsible for sitework if different from permittee)

HOURS PUMPED

PUMPING RATE

METHOD USED TO

MEASURE PUMPING RATE

WATER LEVEL

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED

C-centrifugal

R-reciprocating

O-other

J-jet

S-suction

PUMP INSTALLED

DRILLER WILL INSTALL PUMP

(CIRCLE YES OR NO)

IF DRILLER INSTALLS PUMP THE COST

MUST BE COMPLETED FOR ALL WELLS

EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE IN BOX 58 TO

IN BOX-SEE ABOVE

CAPACITY

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

CASING HEIGHT (circle appropriate)

above

below

LAND SURFACE

LOCATION OF WELL ON LOT

A-SHOW PERMANENT STRUCTURE SUCH AS

BUILDING, SEPTIC TANKS, AND/OR

LANDMARKS AND INDICATE NOT LESS

THAN TWO DISTANCES

(MEASUREMENTS TO WELL)

ORIGINAL

10/4/83 Rec. #1286-1287 EMERGENCY/TEMP NO. IF ANY
1528
SEQUENCE NO. (OEP USE ONLY)
STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER
CE-81-0827
fill in this form completely

(THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3-8 ON ALL CARDS)
Date Received 100483
OWNER INFORMATION
15 Last Name BARCLAY
Owner First Name D.E.
34
1606 PRINCIPAL FURNACE Rd
Street or RFD
36
PERRYVILLE Md 21903
Town State Zip

DRILLER INFORMATION
Constantine DiFilippo
Driller's Name
C.D. DiFilippo Well Drilling Inc.
Firm Name
2235 BLUEBALL Rd Elton Md. 21821
Address
Constantine DiFilippo 10-4-83
Signature Date

WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.) 6
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) \$000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 100 FEET
APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTARY AIR-PERCUSSION ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY Drive-POINT
other Air-Pen

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)
☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☒ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEIN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41

Not to be filled in by driller (OEP USE ONLY)
APPROX. PERMIT NUMBER GAP
FORCE 100
WRITE INITIALS IN BOX
PERMIT No. CE-81-0827

SPECIAL CONDITIONS

LOCATION OF WELL
8 COUNTY Cecil
23 SUBDIVISION
SECTION 44 LOT 40
PERRYVILLE
NEAREST TOWN
MILES FROM TOWN (enter 0 if in town) 2.5

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
N W N E S W S E S
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE CO.)
NEAR WHAT ROAD Md Rt 7
DISTANCE FROM ROAD 305
ENTER FT. or MI 65

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
Cecil
COUNTY NAME
OEP SIGNATURE
DATE ISSUED 100683
Charles E. Smyganski
EAST GRID 10700
NORTH GRID 63500

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. well
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION
Sketch showing location of well in relation to nearby towns and roads. Includes labels for 'md rt 7', 'Perryville', 'house', 'well', and '860'.

67-5331

SEQUENCE NO.
(KEEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE FILED
45 DAYS AFTER WELL COMPLETIONCOUNTY
NUMBER Key WestTHIS NUMBER IS TO BE PUNCHED
IN COLS. 3-8 ON ALL CARDS

DATE RECEIVED

DATE WELL COMPLETED

Depth of Well

85
(TO NEAREST FOOT)

CIS-82

0827

OWNER

STREET OR RFD

SUBDIVISION

BARCLAY

J.R. D.E.

TOWN PARRVILLE MD 21120

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

FROM TC

Check
if water
bearing

Topsoil Gravel 0 15
granite 15 65
Lk Granite 65 85

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

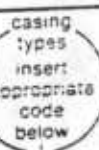
TYPE OF GROUTING MATERIAL

CEMENT ☒ BENTONITE CLAY ☒

NO. OF BAGS 6 NO. OF POUNDS 600

GALLONS OF WATER 30

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 21 ft.
(enter 0 if from surface)

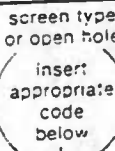
CASING RECORD

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN CASING TYPE Nominal diameter of main casing (nearest inch) Total depth of main casing (nearest foot)

ST 6 21

OTHER CASING (if used):
diameter inch depth (feet) from to



SCREEN RECORD

ST BR HO
STEEL BRASS OPEN HOLE
PL OT
PLASTIC OTHER

C 2

DEPTH (nearest ft.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
4	0	2	1	8	5															

SLOT SIZE 2 3
DIAMETER OF SCREEN (NEAREST INCH)

from to

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

KEEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) WO
70 72 74 75 76
TELESCOPE LOG OTHER DATA
CASING INDICATOR

C 3

HOURS PUMPED

PUMPING RATE (to nearest gal.)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from surface)

BEFORE PUMPING 35

WHEN PUMPING 30

TYPE OF PUMP USED (for test)

A piston T
C centrifugal R rotary O
J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP (YES/NO)
(CIRCLE YES OR NO)
IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A.C.J.P.R.S.T.O.)
IN BOX-SEE ABOVE.

CAPACITY GALLONS PER MINUTE (to nearest gallon) 47

PUMP HORSE POWER 35

PUMP COLUMN LENGTH (nearest ft.) 75

CASING HEIGHT (circle appropriate box and enter casing height)

+ above LAND SURFACE
- below

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

05 17 4
Md. 7
Principio Furnace

CIRCLE APPROPRIATE LETTER
A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 250

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

8/23/84 Rec. #1555-168 PERGENCY/TEMP NO. IF ANY

0617

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

0955

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 36 ON ALL CARDS)

Date Received

031384

OWNER INFORMATION

OALS JAMES

55 Winch Rd

Perryville Md 21903

DRILLER INFORMATION

LARRY A. BROWN

BROWN BROS. DRILLING INC.

497 Kirk Mills Rd, Nottingham, PA 19362

3-13-84

Larry A. Brown

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

- ☒ BORED (or Augered)
- ☐ JETTED
- ☐ Jettied & DRIVEN
- ☒ AIR-ROTARY
- ☐ AIR-PERCussion
- ☐ ROTARY (Hydraulic Rotary)
- ☐ CABLE
- ☐ REVERSE-ROTARY
- ☐ Drive-POINT
- ☐ other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☒ D THIS WELL WILL DEEPM AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER

FORCE

PERMIT No. CB-81-0955

SPECIAL CONDITIONS

B 3

LOCATION OF WELL

Cecil

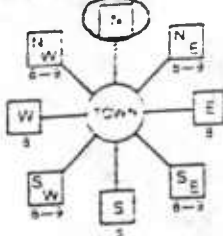
SECTION 44 LOT 47

PRINCIPLO FURNACE

MILES FROM TOWN (enter 0.1 in 0.10)

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Winch Rd

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

50

DISTANCE FROM ROAD

ENTER FT. OR MI.

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP SIGNATURE

DATE ISSUED

031384

NORTH GRID 1039000

EAST GRID 1071000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATERS

1. Well

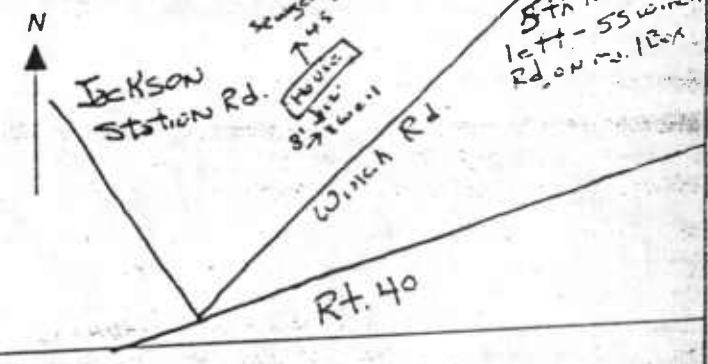
2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 8896

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE FILED
45 DAYS AFTER WELL IS COMPLETEDCOUNTY
NUMBER

DEPARTMENT

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED

DATE WELL COMPLETED

Depth of Well
125
(TO NEAREST FOOT)

C1 8896 0955

OWNER OALS

last name

JAMES

first name

TOWN Perryville, md 21903

STREET OR RFD

55 Winch Rd.

SECTION

SUBDIVISION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

Check
if water
bearing

FROM TO

Well was
deepened
from
85' to 125'

85 125

This well
had dropped
off to
16 PM, before
going deeper

Granite

85 125

The Casing
was cut off
in A well pit,
it has now
been extended
above ground
level to meet
specificationsCIRCLE APPROPRIATE LETTER
A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE.

DRILLERS IDENT. NO.

38

LARRY A BROWN

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

Larry A. Brown

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT C M

BENTONITE CLAY B C

NO. OF BAGS

NO. OF POUNDS

GALLONS OF WATER

DEPTH OF GROUT SEAL (to nearest foot)

from 85 to 125 ft.
(enter 0 if from surface)casing
types
insert
appropriate
code
below

CASING RECORD

ST

CO

STEEL

CONCRETE

PL

OT

PLASTIC

OTHER

MAIN
CASING
TYPENominal diameter
top (main) casing
(nearest inch)Total depth
of main casing
(nearest foot)

85 125

85 125

85 125

OTHER CASING (if used)
diameter
inchdepth (feet)
from 10screen type
or open hole

SCREEN RECORD

ST

BR

HO

STEEL

BRASS

HOLE

PL

BRONZE

OT

PLASTIC

OTHER

C12

WATER SOURCE

DEPTH (nearest ft.)

85 125

85 125

85 125

SLOT SIZE

DIAMETER
OF SCREEN(NEAREST
INCH)

from

to

GRAVEL PACK

IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

WO

70

72

74

75

76

TELESCOPE
CASINGLOG
INDICATOR

OTHER DATA

ORIGINAL

C13

PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal per min)

to nearest gal.

METHOD USED TO

MEASURE PUMPING RATE Air

WATER LEVEL (distance from well)

BEFORE PUMPING 35

WHEN PUMPING 80

TYPE OF PUMP USED (for test)

A piston T turbine

C centrifugal R rotary O other

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES (C)

(CIRCLE) YES or NO

IF DRILLER INSTALLS PUMP THIS SECTION

MUST BE COMPLETED FOR ALL WELLS

EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)

IN BOX SEE ABOVE

CAPACITY:

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

CASING HEIGHT (circle appropriate box)

and enter casing height:

+ above

- below

LAND SURFACE

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS

BUILDING, SEPTIC TANKS, AND OR

LANDMARKS AND INDICATE NOT LESS

THAN TWO DISTANCES

(MEASUREMENTS TO WELL)

Jackson Station Rd.

House

8' to well

Winch Rd.

Rt. 40

0055 SEQUENCE NO. (OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER
0323840976

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

Date Received 022184
OWNER INFORMATION
RAYSON E GLENDON
337 POPPULAR POINT RD
PERRYVILLE MD 21903

DRILLER INFORMATION
WALTER J FRANK
FRANK'S WELL DRG. INC.
7014 FT. SMALLWOOD BALTO. 21226
Walter J Frank 2-16-84

WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.) 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jettied & DRIVEN
AIR-ROtary AIR-PERCussion ROTARY Hydraulic Rotary
CABLE REVERSE-ROtary Drive-POINT
other

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)
THIS WELL WILL NOT REPLACE AN EXISTING WELL
THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED DUG WELL
THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
THIS WELL WILL DEEPEIN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)
APPROX. PERMIT NUMBER GAP
FORCE INITIALS PERMIT NO. CE-81-0976

SPECIAL CONDITIONS

LOCATION OF WELL
CECIL
POPPULAR POINT
SECTION 44 LOT 9
PERRYVILLE
MILES FROM TOWN (center 0 if in town) 33.6

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
DISTANCE FROM ROAD 90 FT
ENTER FT. OF MILE

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
Cecil
COUNTY NAME
OEP SIGNATURE
DATE ISSUED 032384
CO SIGNATURE Charles E. Smyth 2/23/84
NORTH GRID 626000 EAST GRID 1049000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
WRITE THE BOX NUMBER FROM THE MAP HERE
DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

8917

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED
45 DAYS AFTER WELL IS COMPLETED

COUNTY Replacement
NUMBER

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 36 ON ALL CARDS)

DATE Received

DATE WELL COMPLETED

Depth of Well
22 65 125
(TO NEAREST FOOT)

FROM PERMIT NO. 012-81-0976

OWNER

STREET OR RFD

SUBDIVISION

RAYSON
337 POPLAR POINT RD.
POPLAR POINT

SECTION

first name

TOWN PERRYVILLE

LOT 9

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use
additional sheets if needed)

FEET
FROM TO

Check
if water
bearing

SAND + white
CLAY
White clay
SAND
GRAVEL + SAND
GRAVEL + SAND
Red clay
Gray clay
SAND

0 5
5 15
15 20
20 30
30 40
40 50
50 55
55 65 XXX

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BIC

NO. OF BAGS 3 NO. OF POUNDS 150
GALLONS OF WATER 75
DEPTH OF GROUT SEAL (to nearest foot)

from 0 to 30 ft.
(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
below

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN Casing Nominal diameter Total depth
TYPE 100 (main) casing of main casing
(nearest inch) (nearest foot)

PL 4 55

OTHER CASING (if used)
diameter depth (feet)
inch from to

SCREEN RECORD

screen type
or open hole
insert
appropriate
code
below

ST BR HO
STEEL BRASS OPEN
PL BRONZE HOLE
PLASTIC OTHER

DEPTH (nearest ft.)
1 PL 55 65
2
3

SLOT SIZE .020
DIAMETER OF SCREEN 2 (NEAREST INCH)

GRAVEL PACK 55 to 65

IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 62

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

HOURS PUMPED 3

PUMPING RATE 3.0

METHOD USED TO

MEASURE PUMPING RATE 591.2

WATER LEVEL (distance from surface)

BEFORE PUMPING 18

WHEN PUMPING 27

TYPE OF PUMP USED (circle)

A P T

C R O

J S

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES

(CIRCLE YES or NO)

IF DRILLER INSTALLS PUMP THIS SECTION

MUST BE COMPLETED FOR ALL WELLS

EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A.C.J.P.R.S.T.O.)

IN BOX SEE ABOVE

CAPACITY

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

CASING HEIGHT (circle appropriate box)

and enter casing height

above } LAND SURFACE

below }

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS

BUILDING SEPTIC TANKS AND/OR

LANDMARKS AND INDICATE NOT LESS

THAN TWO DISTANCES

(MEASUREMENTS TO WELLS)

30' 70' 90'

POPLAR POINT

NORTHEAST RIVER

WATER

WATER

WATER

WATER

WATER

WATER

WATER

WATER

WATER

WATER

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WATER

ORIGINAL

B 1 3891 SEQUENCE NO. (OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NO. 81-2008

(THIS NUMBER IS TO BE PUNCHED IN COLS. 36 ON ALL CARDS)

Date Received
022186

OWNER INFORMATION

AROS SIMON
1214 ROTHERFORD
NEWARK DE 19713

DRILLER INFORMATION

R. SEWARD
R. J. SEWARD & SON
2526 Old County Rd NEWARK DE
2/19/86

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 850

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 136 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY Drive-POINT
other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPMEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT NO. CE-81-2008

SPECIAL CONDITIONS

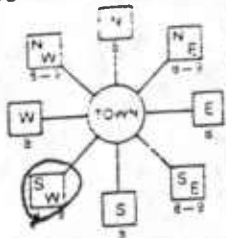
B 3

LOCATION OF WELL

CECIL
GREEN BANK
SECTION 45 LOT 9
CHARLESTOWN
MILES FROM TOWN (enter 0 if in town) 1.7

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

15
DISTANCE FROM ROAD
ENTER FT. OR MI.

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP

SIGNATURE

DATE ISSUED

022186

CO SIGNATURE

630000

NORTH GRID

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SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

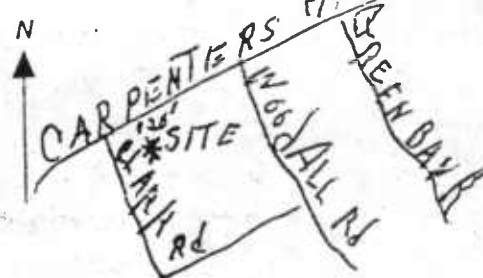
SOURCES OF DRILLING WATER

1. WELL
2. WELL
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD-JUNCTION



ORIGINAL

C1 00769

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE
FILED WITHIN 45 DAYS AFTER
COMPLETION OF WELL
COUNTY
NUMBER(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)DATE RECEIVED
JUN 23 1986

DATE WELL COMPLETED

05/13/86

Depth of Well
146
(TO NEAREST FOOT)

81-2008

OWNER GRASS S/110K
STREET OR RFD 121 W. KUTHER FORDTOWN NEWARK

SUBDIVISION

SECTION

C 3

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

FROM TO

Casing
if water
bearing

TOP SOIL
SAND
BROWN CLAY
COARSE WHITE

0	1	86
86	130	
130	146	

GROUTING RECORD

WELL HAS BEEN GROUTED
Circle Appropriate Box

TYPE OF GROUTING WATER

CEMENT CM BENTONITE CLAY BCNO OF BAGS 9 NO OF POUNDS 450GALLONS OF WATER 125

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

from 0 to 146
center 0 from surface

CASING RECORD

Casing
types
insert
appropriate
code
below

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN Nominal diameter Total depth
CASING 100 (main) casing of main casing
TYPE (nearest inch) (nearest foot)

P 1 4 136

OTHER CASING (if used)
diameter Depth (feet)
inch from to

SCREEN RECORD

Screen type
or open hole
insert
appropriate
code
below

ST BR HO
STEEL BRASS OPEN
PL BRONZE HOLE
PLASTIC OT OTHER

C 2

DEPTH (nearest foot)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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SLOT SIZE 020
DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK
IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 58

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

70 72 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

HOURS PUMPED (nearest)

PUMPING RATE (nearest)

METHOD USED TO

MEASURE PUMPING RATE

WATER LEVEL (distance from surface)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (nearest)

P DISTOT T TURBINE

C CENTRIFUGAL R ROTARY O OTHER

J JET S SUBMERSIBLE

PUMP INSTALLED

DRILLER WILL INSTALL PUMP

IF DRILLER INSTALLS PUMP THIS SECTION

MUST BE COMPLETED FOR ALL WELLS

EXCEPT HOME USE

TYPE OF PUMP INSTALLED

CAPACITY

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

CASING HEIGHT (circle appropriate box

and enter casing height)

LAND SURFACE

NEAREST FOOT

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS

BUILDING SEPTIC TANKS AND OR

LANDMARKS AND INDICATE NOT LESS

THAN TWO DISTANCES

MEASUREMENTS TO WELL

HOUSE

30' WELL

CLARK RD

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION

WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 10.17.13 WELL CONSTRUCTION
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE

DRILLER'S IDENT. NO. 283

DRILLER'S SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

responsible for sitework if different from permittee)

ORIGINAL

378-3422

EMERGENCY/TEMP NO. IF ANY

278-2259

DEP. PERMIT NUMBER

B 3908

SEQUENCE NO.
(OEP USE ONLY)Pd. \$40. 3/12/85 Rec. #3756-NR
STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

031486

DATE OF PERMIT

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

Date Received

031286

OWNER INFORMATION

LYON JERRY T

845 TOME HIWAY

PORT DEPOSIT MD 21904

DRILLER INFORMATION

CHARLES H. HAMILTON JR

JONES G. HAMILTON

115N. PARADISE RD. HD. C-

Charles H. Hamilton Jr. 3/10/86

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN) 10

AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6" NEAREST INCH

METHOD OF DRILLING (circle one)

- BORED (or Augered) JETTED Jetted & DRIVEN
- AIR-ROTARY AIR-PERCUSSION ROTARY (Hydraulic Rotary)
- CABLE REVERSE-ROTARY DRIVE-POINT
- other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPMEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED
(IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER

FORCE PERMIT NO. CE-81-2034

SPECIAL CONDITIONS

B 3

CECILIA

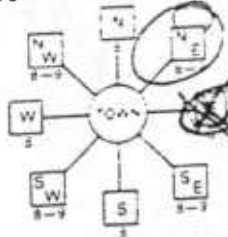
SECTION

LOT

PERRYVILLE

MILES FROM TOWN (enter Grid in town)

B 4

DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)

PRINCIPAL FURNICER

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD

ENTER FEET IN

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

DEP. SIGNATURE

DATE ISSUED

031486

NORTH GRID 636000

EAST GRID 10711000

SHOW MAJOR FEATURES OF
BOX & LOCATE WELL
WITH AN X

SOURCES OF DRILLING WATER

1.

2.

3.

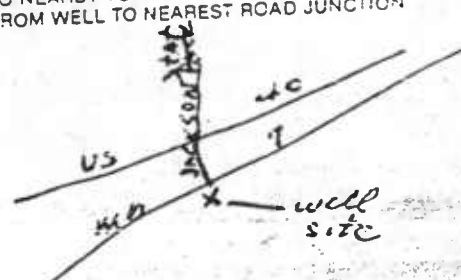
WRITE THE BOX NUMBER
FROM THE MAP HERE

E 1070

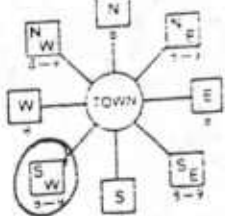
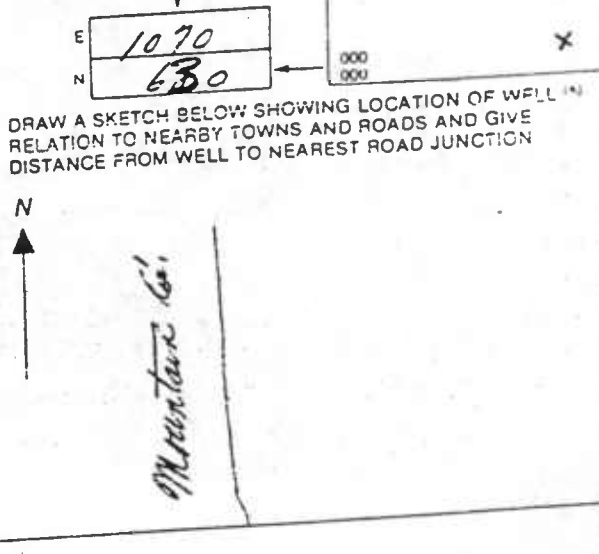
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N



ORIGINAL

EMERGENCY TEMP NO. IF ANY		Pd. \$40. 4/14/86 Rec. #3886-NSR STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL <small>please print or type</small>		OEP FORM NO. 1 81-2079 <small>fill in this form at time of application</small>	
B 1 3930 <small>(THIS NUMBER IS TO BE PUNCHED IN COLS 3-6 ON ALL CARDS)</small>		SEQUENCE NO. <small>(OEP USE ONLY)</small>			
Date Received 041486		OWNER INFORMATION A MONTGOMERY BROS INC 15 Last Name First Name PO BOX 357 Street or R.F.D. RISING SUN MD 21911 Town State Zip			
Driller Information CHAS HAMILTON JR Driller Name JONES & HAMILTON Firm Name 1154 PARADISE RD G.MD 21078 Address C. Hamilton Jr. Signature Date 4-10-86		B 3 LOCATION OF WELL CECIL COUNTY EAST RIDGE SUBDIVISION SECTION 42 LOT 46 CHARLES TOWN NEAREST TOWN MILES FROM TOWN - enter 0 if in town 2.5		DIRECTION OF WELL FROM TOWN (CIRCLE BOX) 	
B 2 APPROX. PUMPING RATE (GAL. PER MIN.) 10 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000		WELL INFORMATION USE FOR WATER (CIRCLE APPROPRIATE BOX) <input checked="" type="checkbox"/> HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY) <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT) <input type="checkbox"/> PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL) <input type="checkbox"/> TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT) APPROXIMATE DEPTH OF WELL 150 FEET APPROXIMATE DIAMETER OF WELL 6 INCH METHOD OF DRILLING (circle one) BORED (or Augered) <input checked="" type="radio"/> JETTED & DRIVEN AIR-ROTARY <input type="radio"/> AIR-PERCUSSION <input type="radio"/> ROTARY (Hydraulic Rotary) CABLE <input type="radio"/> REVERSE-ROTARY <input type="radio"/> DRIVE-POINT other _____ REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX) <input checked="" type="radio"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY <input type="radio"/> THIS WELL WILL DEEPEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) _____ Not to be filled in by driller (OEP USE ONLY) APPROX. PERMIT NUMBER _____ GAP _____ FORCE _____ WRITE INITIALS PERMIT NO. CZ-81-2079 IN BOX			
SPECIAL CONDITIONS		SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X SOURCES OF DRILLING WATER 1. _____ 2. _____ 3. _____ WRITE THE BOX NUMBER FROM THE MAP HERE NORTH GRID 630000 EAST GRID 1078000 DRAW A SKETCH BELOW SHOWING LOCATION OF WELL RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION 			

ORIGINAL

C1 1040

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED
45 DAYS AFTER COMPLETIONCOUNTY
NUMBER 500001 23
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE Received

JUL 11 1986

DATE WELL COMPLETED

062186

Depth of Well

124

(TO NEAREST FOOT)

OWNER

MONTGOMERY BROS. INC.

STREET OR RFD

P.O. Box 357

TOWN

Rising Sun, Md.

SUBDIVISION

EASTRIDGE

SECTION

C 3

WELL LOG
Not required for driven wellsSTATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)FEET
FROM TOCheck
if water
bearingBROWN
SAND +
GRAVEL 0 30

Red CLAY 30 80

White SAND 80 112

COARSE
White
GRAVEL 112 124GROUTING RECORD
WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT ☒ CMBENTONITE CLAY ☒ BC

NO OF BAGS 18

NO OF POUNDS 1692

GALLONS OF WATER 90

DEPTH OF GROUT SEAL TO

from 0 80

casing
types
insert
appropriate
code
below

CASING RECORD

ST

CO

STEEL

CONCRETE

PL

OT

PLASTIC

OTHER

MAIN
CASING
TYPENominal diameter
top (main) casing
(nearest inch)Total depth
of main casing
(nearest foot)

ST

6

119

OTHER CASING

diameter
inchdepth (feet)
from toscreen type
or open hole

SCREEN RECORD

ST

BR

HO

STEEL

BRASS

OPEN

BRONZE

HOLE

PL

OT

PLASTIC

OTHER

C 2

1 2

DEPTH (nearest foot)

EACH

1

2

3

4

5

6

7

8

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B 1 1031 SEQUENCE NO (OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER
050186 2120

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

Date Received

042586

OWNER INFORMATION

myer Floyd
55 Woodall Rd
Charlestown MD

DRILLER INFORMATION

Vernon Kirk
Vernon Kirk Well Drilling
211 Wend Rd Perryville, Md
Signature: Vernon W Kirk 4/24/86

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN) 3
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 300

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV
☐ OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 80 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY Drive-POINT
other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPM AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE PERMIT NO. CE-81-2120

SPECIAL CONDITIONS

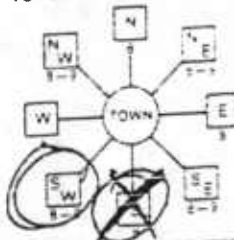
B 3

LOCATION OF WELL

Cecil
GREENBANK
SECTION 44 LOT 42
Charlestown
MILES FROM TOWN: enter 0 if in town

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

30
DISTANCE FROM ROAD
ENTER FT. MI

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME
OEP SIGNATURE

DATE ISSUED 050186
NORTH GRID 630 EAST GRID 1080

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. Well Water
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE

1080
630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

Green Bank
Woodall Rd
x 3 mi
Well
Charlestown

ORIGINAL

C1 1081

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE FILED WITHIN
45 DAYS AFTER WELL COMPLETION

COUNTY NUMBER NEW IS DISTRICT

(THIS NUMBER IS TO BE PUNCHED
IN COLUMNS 3-6 ON ALL CARDS)

DATE RECEIVED

MAY 26 1986

DATE WELL COMPLETED

05/18/86

Depth of Well

07 (TO NEAREST FOOT)

FROM PERMIT NO. 81 2120

OWNER

STREET OR RFD

SUBDIVISION

Meyer Floyd Rd

first name

OWN Charles town, Md

SECTION

GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL

CEMENT CM

BENTONITE CLAY BC

NO. OF BAGS

NO. OF POUNDS

GALLONS OF WATER

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

0 20

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES

STEEL CO

PL OT

PLASTIC OTHER

MAIN CASING TYPE

Nominal diameter of main casing (nearest inch)

Total depth of main casing (nearest foot)

ST 6 91

OTHER CASING TYPE

diameter inch

depth (feet) from

to

SCREEN RECORD

SCREEN TYPE

STEEL BR HO

BRASS BRONZE

PL PLASTIC

OTHER

DEPTH (NEAREST FOOT)

ST 91 96

SLOT SIZE

DIAMETER OF SCREEN

(NEAREST INCH)

GRAVEL PACK

IF WELL DRILLED WAS

FLOWING WELL INSERT

F IN BOX 58

OEP USE ONLY

(NOT TO BE FILLED IN BY DRILLER)

TELESCOPE CASING

LOG INDICATOR

OTHER DATA

W.C.

74 75 76

159

DRILLERS IDENT. NO.

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

responsible for sitework if different from permittee)

C 3

HOURS PUMPED

PUMPING RATE (GPM)

METHOD USED TO

MEASURE PUMPING RATE

WATER LEVEL (NEAREST FOOT)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED

A air P piston T turbine

C centrifugal R rotary S submersible

J jet

Bailer

PUMP INSTALLED

DRILLER WILL INSTALL PUMP

(CIRCLE) YES OR NO

IF DRILLER INSTALLS PUMP THIS SECTION

MUST BE COMPLETED FOR ALL WELLS

EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A, C, P, R, S, T, J)

IN BOX SEE ABOVE

CAPACITY

GALLONS PER MINUTE

(TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(NEAREST FT)

CASING HEIGHT (NEAREST FOOT)

and enter casing height

+ above

- below

LAND SURFACE

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS

BUILDING SEPTIC TANKS AND/OR

LANDMARKS AND INDICATE NOT LESS

THAN TWO DISTANCES

MEASUREMENTS TO WELL

7X well

30 ft

House

50 ft

15 ft

Septic

ORIGINAL

B 1 1069 SEQUENCE NO. (OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

C E 81 2201

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

Date Received

052786

OWNER INFORMATION

PETERSON LARRY
755 4 POLSKY WAY
ELIOTON MD 21921

DRILLER INFORMATION

R. SEWARD
R. J. SEWARD & SON
2516 OLD COUNTY FINEWATER
Date 5/21/86

WELL INFORMATION

APPROX. PUMPING RATE (GAL PER MIN.) 10
AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 140 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jettied & DRIVEN
AIR-ROTARY AIR-PERCUSION ROTARY (Hydraulic Rotary)
CABLE Reverse-ROTARY Drive-POINT
other

REPLACEMENT OR DEEPEINED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEIN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER GAP

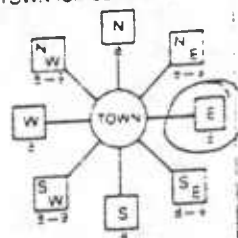
FORCE PERMIT No. CE-81-2201

SPECIAL CONDITIONS

LOCATION OF WELL

CECIL
POPLAR PT.
SECTION 13
FERRYVILLE
MILES FROM TOWN (enter 0 if in town) 2.5

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

20
DISTANCE FROM ROAD

ENTER FT or MI

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP SIGNATURE

DATE ISSUED

052886

NORTH GRID

626000

EAST GRID

1073000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1 WELL AT OFFICE

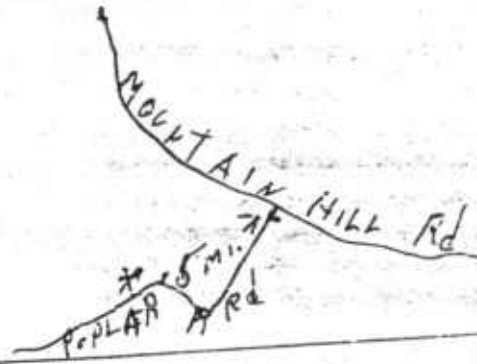
2 WELL AT OFFICE

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 5463

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE FILED WITHIN
45 DAYS AFTER WELL IS COMPLETEDCOUNTY
NUMBER

20307

1 2 3
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED

11/1/86

DATE WELL COMPLETED

11/1/86

CREDIT TO WELL
21 1106
TO NEAREST FOOTFROM PERMIT NO.
CE-81 2201

OWNER PETERSON

LARRY

STREET OR RFD 853

PULASKI HWY

TOWNSHIP

TOWN

FLYING

LOT 13

SUBDIVISION

SECTION

C 3

WELL LOG
Not required for driven wellsSTATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)FEET
FROM TOOther
if water
bearingTOP SOIL
SAND
WHITE CLAY
SAND & GRAVEL
SHALE
WHITE SAND0' 1'
1' 28'
28' 34'
39' 70'
70' 71'
71' 101' ✓GROUTING RECORD
WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT C.M.

BENTONITE B.C.

NO. OF BAGS 3

NO. OFOUNDS 150

GALLONS OF WATER 75

DEPTH OF GROUT SEAL to nearest foot

from 0 to 30

Casing
types
insert
appropriate
code
below

CASING RECORD

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHERMAIN Nominal diameter Total depth
CASING 102 (main) casing of main casing
TYPE (nearest inch) (nearest foot)

PL 4 96

OTHER CASING if used

diameter depth (feet)
inch from toscreen type SCREEN RECORD
or open holeinsert
appropriate
code
belowST BR HO
STEEL BRASS OPEN
PL BRONZE HOLE
PLASTIC OTHER

C 2

DEPTH (nearest foot)

PL 96 100

SLOT SIZE 1/2

DIAMETER 4 NEAREST
OF SCREEN INCHGRAVEL PACK
IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)TELESCOPE
CASING

(E.R.O.S.)

LOG
INDICATORW U
14 15 16
OTHER DATA

HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min.)

10 bearing gal.

METHOD USED TO

MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 4.5

WHEN PUMPING 1.0

TYPE OF PUMP USED (nearest foot)

A air

P piston

T turbine

C centrifugal

R rotary

C casing

J jet

S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES

(CIRCLE) YES or NO

IF DRILLER INSTALLS PUMP, THIS SECTION

MUST BE COMPLETED FOR ALL WELLS

EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A, C, J, P, R, S, T, O)

IN BOX SEE ABOVE

CAPACITY

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

CASING HEIGHT (circle appropriate box

and enter casing height)

+ above

LAND SURFACE

- below

LOCATION OF WELL ON LOT

A SHOW PERMANENT STRUCTURE SUCH AS
BUILDING SEPTIC TANKS AND OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)11/1/86
30'
15'CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE

DRILLER'S IDENT. NO. 283

DRILLER'S SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

ORIGINAL

B 1 2693

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

Please print or type

(THIS NUMBER IS TO BE PUNCHED
IN COLS 36 ON ALL CARDS)

Date Received

100186

OWNER INFORMATION

MCGUIRE MICHAEL

4596 PULASKI HWY

PERRYVILLE MD 21903

DRILLER INFORMATION

Charles Hamilton

JONES + HAMILTON

115 N. Paradise Rd. Havre de Grace,
Charles H. Hamilton, 9-30-66

Signature

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5

AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY. REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 200 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTARY AIR-PERCUSSION ROTARY (Hydraulic Rotary)

CABLE REVERSE-ROTARY Drive-POINT

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEMED AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED
(IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER GAP

FORCE PERMIT NO. CE-81-2507

SPECIAL CONDITIONS

ORIGINAL

018 2507

B 3

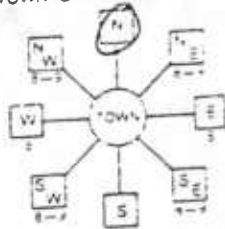
CECIL

SECTION

PRINCIPAL FURNACE

MILES FROM TOWN

B 4

DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)

JACKSON Station Rd.

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)

30

DISTANCE FROM TOWN

ENTER FEET

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP

SIGNATURE

DATE ISSUED

100286

Charles E. Simpson

NORTH
GRID

637000

EAST
GRID

1076000

SHOW MAJOR FEATURES OF
BOX & LOCATE WELL
WITH AN X

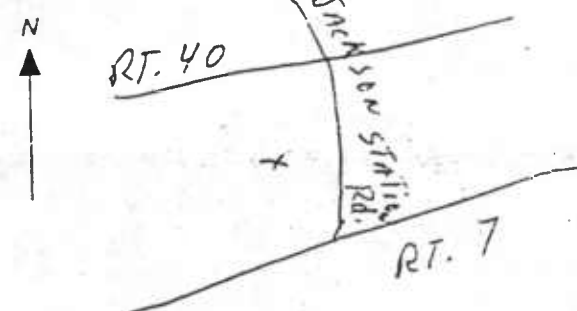
SOURCES OF DRILLING WATER

- 1.
- 2.
- 3.

WRITE THE BOX NUMBER
FROM THE MAP HERE

E 1070

N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

C1 5183

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED
45 DAYS AFTER WELL IS COMPLETED
COUNTY
NUMBER 290301 2 3
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE Received

06/27/1988

DATE WELL COMPLETED

10/23/86

Depth of Well

22 275 74
(TO NEAREST FOOT)

FROM PERMIT NO. 2507

OWNER

last name McGuirk

first name MICHAEL

TOWN

Perryville, MD

STREET OR RFD

4596 Pulaski Hwy.

SECTION

SUBDIVISION

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

FROM

TO

Check
if water
bearingYellow
SAND &
GRAVEL

0 20

Red Clay

20 40

BROWN
WEATHERED
ROCK

40 56

HARD
GREEN &
GRAY GRANITE

56 275

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT ☒ BENTONITE CLAY ☒

NO. OF BAGS 17 NO. OF POUNDS 1578

GALLONS OF WATER 95

DEPTH OF GROUT SEAL (to nearest foot)

from 0 59 57 to 60 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0
(enter 0 if from surface)Casing
types
insert
appropriate
code
below

CASING RECORD

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHERMAIN Nominal diameter Total depth
CASING too (main) casing of main casing
TYPE (nearest inch) (nearest foot)

ST 6 60

OTHER CASING (if used)

diameter depth (feet)
inch from toscreen type
or open hole
insert
appropriate
code
below

SCREEN RECORD

ST BR HO
STEEL BRASS OPEN
HOLE
PL OT
PLASTIC OTHER

C2

DEPTH (nearest foot)
1 40 60 275
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
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41
42
43
44
45
46
47
48
49
50SLOT SIZE 1 2 3
DIAMETER OF SCREEN (NEAREST INCH)
from toGRAVEL PACK
IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)T (E.R.O.S.) WG
70 72
TELESCOPE LOG
CASING INDICATOR OTHER DATA

C3

PUMPING YES

HOURS PUMPED (nearest hour)

PUMPING RATE (gal per min)

to nearest gal

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (for test)

A air P piston T turbine

C centrifugal R rotary C other

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE A, C, J, P, R, S TO
IN BOX SEE ABOVECAPACITY
GALLONS PER MINUTE
to nearest gallon

PUMP HORSE POWER

PUMP COLUMN LENGTH
(nearest foot)CASING HEIGHT (circle appropriate box
and enter casing height)+ above } LAND SURFACE
- below } 7 nearest foot

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
MEASUREMENTS TO WELL.House
WELL
32' 16'

Jackson Station Rd.

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE.

DRILLER'S IDENT. NO. 112

DRILLER'S SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

ORIGINAL

EMERGENCY/TEMP NO. IF ANY

Pd. \$40 10/27/86 Rec. #4659-MER

STATE OF MARYLAND

APPLICATION FOR PERMIT TO DRILL WELL

please print or type

LOCATION OF WELL

B 1 3969 SEQUENCE NO.
(OEP USE ONLY)(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-8 ON ALL CARDS)

Date Received

10 27 86

OWNER INFORMATION

MONTGOMERY BROS INC

20 Box 357

RISING SUN MD 21911

Transferred to Robert J. SEWARD

DRILLER INFO

Signature

11500 Sunrise Highway, Suite 100, P.O. Box 100, Rising Sun, MD 21911

Signature

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV
- ☐ OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered)

JETTED

Jetted & DRIVEN

AIR-ROTARY

AIR-PERCussion

ROTARY (Hydraulic Rotary)

CABLE

REVERSE-ROTARY

Drive-POINT

REPLACEMENT OR DEEPEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER

FORCE

PERMIT NO.

CE-81-2582

SPECIAL CONDITIONS

B 3

CECIL

EASTRIDGE

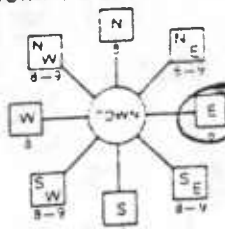
SECTION

LOT

PERRYVILLE

MILES FROM TOWN (enter 0 if in town)

B 4

DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)DISTANCE FROM ROAD
ENTER FT OR MINOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVALCecil
COUNTY NAMEOEP
SIGNATURE

DATE ISSUED

10 27 86

NORTH GRID

EAST GRID

SHOW MAJOR FEATURES OF
BOX & LOCATE WELL
WITH AN X

SOURCES OF DRILLING WATER

- 1.
- 2.
- 3.

WRITE THE BOX NUMBER
FROM THE MAP HEREE 1070
N 630DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

Mr. Hill

X WELL

ORIGINAL

C1 6553

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE FILED WITHIN
45 DAYS AFTER WELL IS COMPLETEDCOUNTY
NUMBER: B9750(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED

MAR 16 1987

DATE WELL COMPLETED

02/18/87

Depth of Well

22 165
(TO NEAREST FOOT)

PERMIT NO.

FROM PERMIT NO. 2582
CE-1011OWNER MONTGOMERY DRIS
STREET OR RFD PO BOX 357
SUBDIVISION EAST RIDGE

first name

TOWN RISING SUN

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

Check
if water
bearing

DESCRIPTION (Use additional sheets if needed)	FEET	Check if water bearing
TOP SOIL	0	1
CLAY SILT	1	3
SAND & GRAVEL	3	51
RED CLAY	51	76
SAND & CLAY	76	89
RED CLAY	89	137
FINE SAND	137	149
COARSE SAND	149	165

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CIM BENTONITE CLAY BCNO OF BAGS 5 NO OF POUNDS 350GALLONS OF WATER 125

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft to 53 ft
(enter 0 if from surface)casing
types
insert
appropriate
code
below

CASING RECORD

ST	CO
STEEL	CONCRETE
PL	OT
PLASTIC	OTHER

MAIN CASING TYPE
Nominal diameter top (main) casing (nearest inch)
Total depth of main casing (nearest foot)PL 4 155OTHER CASING (if used)
diameter inch depth (feet) from toscreen type
or open hole
insert
appropriate
code
below

SCREEN RECORD

ST	BR	HO
STEEL	BRASS	OPEN HOLE
PL	BRONZE	OT
PLASTIC	OTHER	

C2

DEPTH (nearest ft)
PL 155 165SLOT SIZE: 20DIAMETER OF SCREEN 4 (NEAREST INCH)GRAVEL PACK 155 TO 165
IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 58OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T	(E.R.O.S.)	WG
75	72	78 75 75
TELESCOPE CASING	LOG INDICATOR	OTHER DATA

C3

PUMPING TEST

HOURS PUMPED (nearest 1/2)

PUMPING RATE (gal per min)

METHOD USED TO MEASURE PUMPING RATE FLOW METER

WATER LEVEL (distance from land surface)

BEFORE PUMPING 117WHEN PUMPING 165

TYPE OF PUMP USED (circle)

A	P	T
Centrifugal	Piston	Turbine
C	R	O
Jet	Rotary	Other (describe below)
J	S	
	Submersible	

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

(CIRCLE YES OR NO)

IF DRILLER INSTALLS PUMP THIS SECTION

MUST BE COMPLETED FOR ALL WELLS

EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE IN BOX SEE ABOVE

CAPACITY GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft)

CASING HEIGHT (circle appropriate box and enter casing height)

+	-
Above	Below

LAND SURFACE

NEAREST FOOT

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS

BUILDING SEPTIC TANKS AND/OR

LANDMARKS AND INDICATE NOT LESS

THAN TWO DISTANCES

MEASUREMENTS TO WELL

CIRCLE APPROPRIATE LETTER

A WELL WAS ABANDONED AND SEALED

WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION

WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN

ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"

AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE

ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION

PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST

OF MY KNOWLEDGE

DRILLER'S IDENT. NO. 283

DRILLER'S SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

responsible for sitework if different from permittee)

ORIGINAL

B 1 3981

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
Please print or type

[CE] 81-2711

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 34 ON ALL CARDS)

Date Received

010587

OWNER INFORMATION

MILLER BOB

25 GILLEY RD

PERRYVILLE MD 21903

DRILLER INFORMATION

CHARLES H. HAMILTON JR 1112

JONES & HAMILTON

115 N. PARADISE RD - 1-HA -

Charles H. Hamilton Jr. 1/4/87

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☒ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)

CABLE REVERSE-ROTARY Drive-POINT

other

REPLACEMENT OR DEEPEINED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☒ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ D THIS WELL WILL DEEPEIN AN EXISTING WELL
- PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER GAP

FORCE WRITE INITIALS PERMIT NO. CE-81-2711

SPECIAL CONDITIONS

ORIGINAL

B 2

CECIL

SECTION

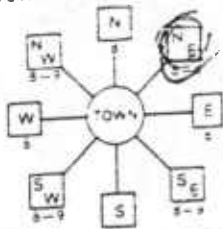
LOT

PERRYVILLE

MILES FROM TOWN (enter 0 if in town)

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD

ENTER FEET

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP SIGNATURE

DATE ISSUED

010987

NORTH GRID

635000

EAST GRID

107000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1.

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



REPLACES DRILLED WELL (checked within 1 month)

C1 6891

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE
45 DAYS AFTER WELL
COUNTY
NUMBER(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED

DATE WELL COMPLETED

Depth of Well

167
(TO NEAREST FOOT)

FROM PERMIT NO. 2711

OWNER

last name

Miller Bob
25 Gilley Rd

first name

TOWN

Perryville, Md

STREET OR RFD

SECTION

SUBDIVISION

C 3

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

FROM TO

Check
if water
bearingBrown
sand

0 30

Red clay

30 50

Soft green
rock

50 68

Hard green
+ gray
granite

68 167

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT

BENTONITE CLAY

NO. OF BAGS 18 NO. OF POUNDS 1692

GALLONS OF WATER 90

DEPTH OF GROUT SEAL (to nearest foot)

from 0 to 71

Casing
types
insert
appropriate
code
below

CASING RECORD

ST

CO

STEEL

CONCRETE

PL

OT

PLASTIC

OTHER

MAIN
CASING
TYPENominal diameter
top (main) casing
(nearest inch)Total depth
of main casing
(nearest foot)

ST

6

71

OTHER CASING (if used)

diameter

depth (feet)

inch

from to

screen type
or open hole
insert
appropriate
code
below

SCREEN RECORD

ST

BR

HO

STEEL

BRASS

OPEN

PL

OT

MOLE

PLASTIC

OTHER

C 2

DEPTH (nearest ft.)
40 71 167

SLOT SIZE

DIAMETER

OF SCREEN

from

to

inch

GRAVEL PACK

IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68

OEP USE ONLY

(NOT TO BE FILLED IN BY DRILLER)

T

(E.P.O.S.)

TO

LOG

TELESCOPE
CASING

INDICATOR

WC
OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest 1/2)

PUMPING RATE (gal per min)

to nearest gal

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (circle)

A Air

P Piston

T Turbine

C Centrifugal

R Rotary

J Jet

S Submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES

(CIRCLE) (YES or NO)
IF DRILLER INSTALLS PUMP THIS SECTION
MUST BE COMPLETED FOR ALL WELLSEXCEPT HOME USE
TYPE OF PUMP INSTALLED

PLACE (A, C, J, P, R, S, T) IN BOX SEE ABOVE

CAPACITY

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

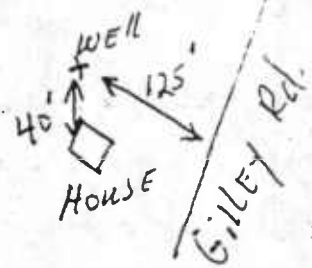
CASING HEIGHT (circle appropriate box)

and enter casing height

LAND SURFACE

nearest foot

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING SEPTIC TANKS AND/OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
MEASUREMENTS TO WELL

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED

WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION

WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN

ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION

AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE

ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION

PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST

OF MY KNOWLEDGE

DRILLER'S IDENT. NO. 112

DRILLER'S SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

responsible for sitework if different from permittee)

ORIGINAL

378-4494

B 1 3982
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

CE 81-2720

Date Received 010987
OWNER INFORMATION
Last Name First Name
55 GILLEY ROAD
PERRYVILLE MD 21903

LOCATION OF WELL
SECTION 44 LOT 40
PERRYVILLE
MILES FROM TOWN (enter distance in town)

DRILLER INFORMATION
Driller's Name License No. 1112
JONES & HAMILTON
115N PARADISE RD H 26-
Charles H. Hamilton Jr. 1/5/37

DIRECT ION OF WELL FROM TOWN (CIRCLE BOX)
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
DISTANCE FROM ROAD 500
ENTER FT OR MI 500 FT

WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.) 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

Cecil
COUNTY NAME
OEP SIGNATURE
DATE ISSUED 010987
NORTH GRID 636000 EAST GRID 107000

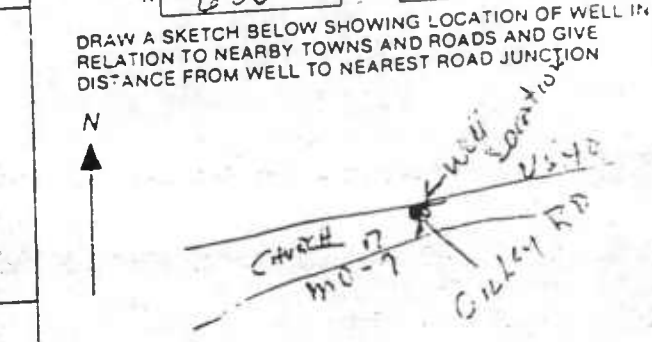
APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY DRIVE-POINT
other

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. X
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 630

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
THIS WELL WILL NOT REPLACE AN EXISTING WELL
THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
THIS WELL WILL DEEPM AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)



Not to be filled in by driller (OEP USE ONLY)
APPROX. PERMIT NUMBER GAP

FORCE 67 68 WRITE INITIALS IN BOX PERMIT NO. CE-81-2720

SPECIAL CONDITIONS

ORIGINAL

C1 6900

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED
45 DAYS AFTER WELL IS COMPLETEDCOUNTY
NUMBER 002101 2 3
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE Received

AUG 16 1937

DATE WELL COMPLETED

01/14/87

Depth of Well

22 250 1 24
(TO NEAREST FOOT)PERMIT NO.
CB-81 2720

OWNER

last name

TATE ROGER
55 GILLEY RD.

first name

TOWN

Perryville Md.

STREET OR RFD

SUBDIVISION

SECTION

C 3

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

FROM TO

Check
if water
bearingBROWN
SAND

0 35

RED CLAY

35 55

HARD GREEN
+
GRAY GRANITE

55 250

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT ☒ (CM)BENTONITE CLAY ☐ (BC)

NO OF BAGS 16 NO OF POUNDS 1504

GALLONS OF WATER 80

DEPTH OF GROUT SEAL (to nearest foot)

from 0 11 to 61 58
(enter 0 if from surface)

casing

types

insert

appropriate

code

below

CASING RECORD

ST CO
STEEL CONCRETEPL OT
PLASTIC OTHERMAIN CASING Nominal diameter Total depth
TYPE top (main) casing of main casing
(nearest inch) (nearest foot)

ST 6 61 70

OTHER CASING (if used)

diameter depth (feet)
inch from to

screen type

or open hole

insert

appropriate

code

below

SCREEN RECORD

ST

BR

HO

STEEL

BRASS

OPEN

BRONZE

HOLE

OTHER

PL

OT

PLASTIC

C 2

1 2

DEPTH (nearest ft.)

40 61 250

23 24 25 30 32 36

38 39 41 43 45 47

SLOT SIZE 2 3

DIAMETER OF SCREEN (NEAREST INCH)

from 10

GRAVEL PACK IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

70 72

TELESCOPE
CASINGLOG
INDICATOR

WQ

74 75 76

OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal per min)

METHOD USED TO

MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (for test)

A air P piston T turbine

C centrifugal R rotary O other

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

(CIRCLE) (YES or NO)

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS

EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A, C, J, P, R, S, T, O)

IN BOX - SEE ABOVE

CAPACITY

GALLONS PER MINUTE

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

CASING HEIGHT (circle appropriate box
and enter casing height)

LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS

BUILDING, SEPTIC TANKS, AND/OR

LANDMARKS AND INDICATE NOT LESS

THAN TWO DISTANCES

MEASUREMENTS TO WELL

House

WELL X 35

500

Gilley Rd.

CIRCLE APPROPRIATE LETTER
A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLTHEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE

DRILLER'S IDENT. NO.

Charles H. Hamilton

DRILLER'S SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

ORIGINAL

8436

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

2987

THIS NUMBER IS TO BE PUNCHED
IN CCLS 3-8 ON ALL CARDS

Date Received

05/27/87

OWNER INFORMATION

DIETER FRANK

191 JACKSON ST

PERRYVILLE MD 21903

DRILLER INFORMATION

CONSTANTINE DiFilippo

AQUAPUR inc

2235 Bluebell Rd, Ellettsville Ind. 47421

Constantine DiFilippo 5-26-87

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 4

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

- BORED (or Augered) JETTED Jetted & DRIVEN
- AIR-ROTARY AIR-PERCUSSION ROTARY (Hydraulic Rotary)
- CABLE REVERSE-ROTARY Drive-POINT
- other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEMED AN EXISTING WELL
- PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER GAP

FORCE INITIALS PERMIT NO. CE-81-2987

SPECIAL CONDITIONS

LOCATION OF WELL

CECIL 82938

HAYES

SECTION LOT

PERRYVILLE

MILES FROM TOWN (enter 0 if in town)

PERRYVILLE

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD

ENTER FT. or MI.

NOT TO BE FILLED IN BY DRILLER

HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP

SIGNATURE

DATE ISSUED

060187

CO SIGNATURE

NORTH GRID

637000

EAST GRID

1070000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. well

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

1070

630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

Rail Road

Jackson

Simplic

US 40

2580

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE
FILED WITHIN 45 DAYS AFTER WELL COMPLETION
COUNTY
NUMBER

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE Received

SEP 14 1987

DATE WELL COMPLETED

0603 87

Depth of Well

22 126 (TO NEAREST FOOT)

2987

OWNER DIETER FRANK
STREET OR RFD 197 JACKSON STATION RD TOWN PERRYVILLE, Md.
SUBDIVISION _____ SECTION _____ LOT _____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
frank clay	0	42	
gray granite	42	100	L
gray granite	100	126	L

GROUTING RECORD
WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT ☒ BENTONITE CLAY ☒

NO. OF BAGS 10 NO. OFOUNDS 940
GALLONS OF WATER 50
DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 45 ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
☒ ST STEEL ☒ CO CONCRETE
☒ PL PLASTIC ☒ OT OTHER

MAIN CASING TYPE ☒ ST
Nominal diameter of main casing (nearest inch) 6
Total depth of main casing (nearest foot) 45

OTHER CASING (if used)
diameter inch _____ depth (feet) from _____ to _____

SCREEN RECORD
screen type or open hole insert appropriate code below
☒ ST STEEL ☒ BR BRASS ☒ HO OPEN HOLE
☒ PL PLASTIC ☒ OT OTHER

DEPTH (nearest ft.)
1 40 2 45 3 126
4 _____ 5 _____ 6 _____
7 _____ 8 _____ 9 _____
10 _____ 11 _____ 12 _____
13 _____ 14 _____ 15 _____
16 _____ 17 _____ 18 _____
19 _____ 20 _____ 21 _____
22 _____ 23 _____ 24 _____
25 _____ 26 _____ 27 _____
28 _____ 29 _____ 30 _____
31 _____ 32 _____ 33 _____
34 _____ 35 _____ 36 _____
37 _____ 38 _____ 39 _____
40 _____ 41 _____ 42 _____
43 _____ 44 _____ 45 _____
46 _____ 47 _____ 48 _____
49 _____ 50 _____ 51 _____

SLOT SIZE 1 _____ 2 _____ 3 _____
DIAMETER OF SCREEN _____ (NEAREST INCH)

GRAVEL PACK _____
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T _____ (E.R.O.S.)
TELESCOPE CASING _____ LOG INDICATOR _____
WO _____
OTHER DATA _____

HOUSING PUMP _____
PUMPING RATE (gpm) _____
METHOD USED TO MEASURE PUMPING RATE _____
WATER LEVEL (distance from _____)
BEFORE PUMPING 40
WHEN PUMPING 70
TYPE OF PUMP USED (for test)
☒ A Air ☒ P Pist ☒ T Turbine
☒ C centrifugal ☒ R rotary ☒ O other
☒ J Jet ☒ S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES ☒
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY, GALLONS PER MINUTE (to nearest gallon) _____
PUMP HORSE POWER _____
PUMP COLUMN LENGTH (nearest ft.) _____
CASING HEIGHT (circle appropriate box and enter casing height)
☒ + above ☒ - below
LAND SURFACE ☒ (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)
1 Rail Road
2 JACKSON STATION
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100

CIRCLE APPROPRIATE LETTER
A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 250
Constantine D. Schipps
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework different from permittee)

ORIGINAL

3792

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

Cecil 2997

THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-5 ON ALL CARDS

Date Received

052887

OWNER INFORMATION

HUGHES ROBERT
205 EAST JOPPA RD
TOWSON Md 21204

DRILLER INFORMATION

DONALD S. NEWMAN
SHORE Well Drillers
Cecilton, Md. 21913
Donald S. Newman 5/26/87

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10
AVERAGE DAILY QUANTITY NEEDED 1000
(GAL. PER DAY)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 70 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTARY AIR-PERCUSION ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY DRIVE-POINT
other

REPLACEMENT OR DEEPEINED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☒ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER GAP

FORCE INITIALS PERMIT NO. CE-81-2997

SPECIAL CONDITIONS

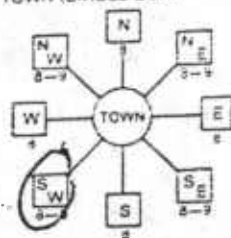
B 3

LOCATION OF WELL

CECIL
GREENBANK
SECTION LOT
CHARLESTOWN
MILES FROM TOWN (enter 0 if in town) 3

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



84 K.K. Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE NO.)

20 DISTANCE FROM ROAD ENTER FT. OR MI.

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME OEP SIGNATURE DATE ISSUED 060487 Charles E. Singer 12/4/87
NORTH GRID 629000 EAST GRID 1080000

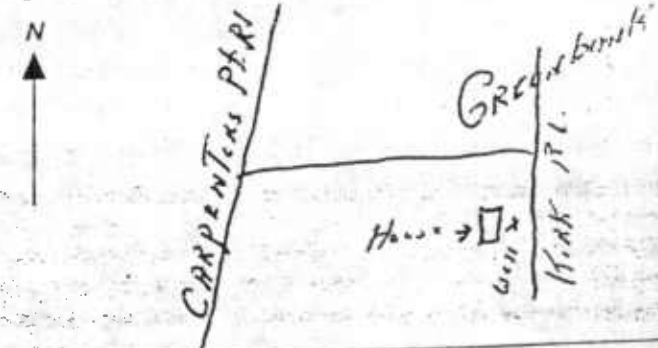
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

- SOURCES OF DRILLING WATER
1. TOWN - Cecilton
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

2592
SEQUENCE NO. (OEP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

COUNTY
NUMBER

Regd. No. 1-5-1-1

DATE Received

DATE WELL COMPLETED

072387

Depth of Well

619
(TO NEAREST FOOT)

FROM PERMIT NO. 1-5-1-1
01-81-2997

OWNER Huges, Robert
STREET OR RFD 205 East Joppa Rd.
SUBDIVISION Greenbank

first name TOWN Towson, Md. LOT

SECTION

C 3

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed) FEET FROM TO Check if water bearing

yellow-white-gray clay 0 16
yellow-white-red clay-sand 16 75
yellow-white sand 75 83
yellow-white sand 83 89

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box)

yes Y no N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS NO. OF POUNDS NO. OF ANNULAR SPACE

GALLONS OF WATER DEPTH OF GROUT SEAL (to nearest foot)

from 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 ft. to 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 ft.
(enter 0 if from surface)

casing types insert appropriate code below

CASING RECORD

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)

S T 4 79

OTHER CASING (if used) diameter inch depth (feet) from to

S T 2 73 84

screen type or open hole insert appropriate code below

SCREEN RECORD

ST BR HO
STEEL BRASS OPEN HOLE
PL OT
PLASTIC OTHER

C 2

DEPTH (nearest ft.)

S T 84 89

23 24 26 30 32 36

38 39 41 45 47 51

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SLOT SIZE 15 2 3

DIAMETER OF SCREEN 3 (NEAREST INCH)

from to

GRAVEL PACK

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

70 T 72

TELESCOPE CASING LOG INDICATOR

OTHER DATA

PUMPING TEST
HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal per min) to nearest gal 20

METHOD USED TO MEASURE PUMPING RATE: BUCKET

WATER LEVEL (distance from land surface)

BEFORE PUMPING 2

WHEN PUMPING 40

TYPE OF PUMP USED (for test)

A piston T

C centrifugal R rotary C

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP (CIRCLE) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A.C.J.P.R.S.T.O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

LAND SURFACE

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND OF LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

138

DRILLERS IDENT. NO.

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

6948 SEQUENCE NO. (OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER
CE-1311-21820

(THIS NUMBER IS TO BE PUNCHED
ON COILS 3-8 ON ALL CARDS)

Date Received 4/27/88
OWNER INFORMATION
Last Name: FROHEISER First Name: JEFFREY
Street or RFD: 35 CHESTNUT PT RD
Town: PERRYVILLE State: MD Zip: 21903

DRILLER INFORMATION
Driller's Name: R. SEWARD
First Name: R. J. SEWARD & SON
Address: 2526 Old County Rd NEWARK DE
Signature: Robert Seward Date: 4/26/88
License No. 283

WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.) 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1600

USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jettied & DRIVEN
AIR-ROTARY AIR-Percussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY Drive-POINT
other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEM AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)
APPROX. PERMIT NUMBER GAP
FORCE INITIALS PERMIT No. CE-81-3820

SPECIAL CONDITIONS

LOCATION OF WELL
COUNTY: CECIL
SUBDIVISION: GREENBANK
SECTION: 40 LOT: 3
TOWN: CHARLESTOWN
MILES FROM TOWN (enter 0 if in town) 1

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
DISTANCE FROM ROAD 160 FEET

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL
Cecil COUNTY NAME
OEP SIGNATURE: Charles E. Surges DATE ISSUED: 4/26/88
NORTH GRID: 530000 EAST GRID: 1080000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. WELL AT OFFICE
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1080
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION
Sketch showing location of well in relation to nearby towns and roads. Labels include: GREENBANK, WOODBURN, RIVER, and a well location marked with an 'X'.

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

1. 2. 3. (SEQ. NO.) **5245**
 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-5 ON ALL CAPS)

DATE RECEIVED (WRA USE ONLY) **Feb 7, 1989**
 DATE WELL COMPLETED **080788**

DEPTH OF WELL **138**
 (ITS NEAREST FOOT) 22 26

PERMIT NO. FROM STATE **C 3-16-1-131 R 2.0**
 26 29 30 31 32 33 34

DRILLERS IDENTIFICATION NO. **283**

OWNER **FRON HEISER**
 LAST NAME **HEISER** FIRST NAME **FRON**
 STREET OR R.F.D. **85 CHESTNUT PT RD** POST OFFICE **FERRYVILLE MD 21745**

WELL DESCRIPTION

WELL LOG
 STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DPTH., THICKNESS AND IF WATER BEARS

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET		CHECK IF WATER BEARS
	FROM	TO	
TOP SOIL	0	6"	
CLAY SILT	6"	3'	
SAND CLAY	3'	18'	
SILT MIXED	18'	30'	
SAND GRAVEL	30'	45'	
MULTY COLOR CLAY	45'	56'	
RED CLAY	56'	67'	
GRAY CLAY	67'	85'	
FINE WHITE SAND	85'	90'	
GRAY CLAY FINE	90'	120'	
SAND MIXED	120'	125'	
FINE SAND GRAY	125'	138'	
CLAY STRINGERS			
FINE TO MED			
COARSE WHITE SAND			
MED. COARSE WHITE SAND			

GROUTING RECORD
 WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX)
 YES ☒ NO ☐
 TYPE OF GROUT NO. MATERIAL (CIRCLE NO.)
 CEMENT ☒ M 50-50 PORTLAND CEMENT ☒ C
 NO. OF BAGS **3** NO. OF POUNDS **150**
 GALLONS OF WATER **75**
 DEPTH OF GROUT SEAL (ITS NEAREST FOOT)
 FROM **0** FT. TO **30** FT.
 (ENTER 0 IF FROM SURFACE)

CASING RECORD
 Casing Types: INSERT APPROPRIATE CODE BELOW
 STEEL ☒ CONCRETE ☐
 PLASTIC ☐ OTHER ☐
 MAIN CASING TYPE ☒ PL **4** TOTAL DEPTH OF MAIN CASING (NEAREST FOOT) **128**

OTHER CASING (IF USED)
 DIAMETER (INCH) DEPTH (FEET) FROM TO

SCREEN RECORD
 SCREEN TYPE OR OPEN HOLE: INSERT APPROPRIATE CODE BELOW
 STEEL ☒ BRASS OR BRONZE ☐ OPEN HOLE ☐
 PLASTIC ☐ OTHER ☐
 C 2

1. 2. 3. (SEQ. NO.) 5
 DEPTH (NEAREST WHOLE FOOT)
 FROM **128** TO **138**
 EACH SCREEN: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 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820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000. 1001. 1002. 1003. 1004. 1005. 1006. 1007. 1008. 1009. 1010. 1011. 1012. 1013. 1014. 1015. 1016. 1017. 1018. 1019. 1020. 1021. 1022. 1023. 1024. 1025. 1026. 1027. 1028. 1029. 1030. 1031. 1032. 1033. 1034. 1035. 1036. 1037. 1038. 1039. 1040. 1041. 1042. 1043. 1044. 1045. 1046. 1047. 1048. 1049. 1050. 1051. 1052. 1053. 1054. 1055. 1056. 1057. 1058. 1059. 1060. 1061. 1062. 1063. 1064. 1065. 1066. 1067. 1068. 1069. 1070. 1071. 1072. 1073. 1074. 1075. 1076. 1077. 1078. 1079. 1080. 1081. 1082. 1083. 1084. 1085. 1086. 1087. 1088. 1089. 1090. 1091. 1092. 1093. 1094. 1095. 1096. 1097. 1098. 1099. 1100. 1101. 1102. 1103. 1104. 1105. 1106. 1107. 1108. 1109. 1110. 1111. 1112. 1113. 1114. 1115. 1116. 1117. 1118. 1119. 1120. 1121. 1122. 1123. 1124. 1125. 1126. 1127. 1128. 1129. 1130. 1131. 1132. 1133. 1134. 1135. 1136. 1137. 1138. 1139. 1140. 1141. 1142. 1143. 1144. 1145. 1146. 1147. 1148. 1149. 1150. 1151. 1152. 1153. 1154. 1155. 1156. 1157. 1158. 1159. 1160. 1161. 1162. 1163. 1164. 1165. 1166. 1167. 1168. 1169. 1170. 1171. 1172. 1173. 1174. 1175. 1176. 1177. 1178. 1179. 1180. 1181. 1182. 1183. 1184. 1185. 1186. 1187. 1188. 1189. 1190. 1191. 1192. 1193. 1194. 1195. 1196. 1197. 1198. 1199. 1200. 1201. 1202. 1203. 1204. 1205. 1206. 1207. 1208. 1209. 1210. 1211. 1212. 1213. 1214. 1215. 1216. 1217. 1218. 1219. 1220. 1221. 1222. 1223. 1224. 1225. 1226. 1227. 1228. 1229. 1230. 1231. 1232. 1233. 1234. 1235. 1236. 1237. 1238. 1239. 1240. 1241. 1242. 1243. 1244. 1245. 1246. 1247. 1248. 1249. 1250. 1251. 1252. 1253. 1254. 1255. 1256. 1257. 1258. 1259. 1260. 1261. 1262. 1263. 1264. 1265. 1266. 1267. 1268. 1269. 1270. 1271. 1272. 1273. 1274. 1275. 1276. 1277. 1278. 1279. 1280. 1281. 1282. 1283. 1284. 1285. 1286. 1287. 1288. 1289. 1290. 1291. 1292. 1293. 1294. 1295. 1296. 1297. 1298. 1299. 1300. 1301. 1302. 1303. 1304. 1305. 1306. 1307. 1308. 1309. 1310. 1311. 1312. 1313. 1314. 1315. 1316. 1317. 1318. 1319. 1320. 1321. 1322. 1323. 1324. 1325. 1326. 1327. 1328. 1329. 1330. 1331. 1332. 1333. 1334. 1335. 1336. 1337. 1338. 1339. 1340. 1341. 1342. 1343. 1344. 1345. 1346. 1347. 1348. 1349. 1350. 1351. 1352. 1353. 1354. 1355. 1356. 1357. 1358. 1359. 1360. 1361. 1362. 1363. 1364. 1365. 1366. 1367. 1368. 1369. 1370. 1371. 1372. 1373. 1374. 1375. 1376. 1377. 1378. 1379. 1380. 1381. 1382. 1383. 1384. 1385. 1386. 1387. 1388. 1389. 1390. 1391. 1392. 1393. 1394. 1395. 1396. 1397. 1398. 1399. 1400. 1401. 1402. 1403. 1404. 1405. 1406. 1407. 1408. 1409. 1410. 1411. 1412. 1413. 1414. 1415. 1416. 1417. 1418. 1419. 1420. 1421. 1422. 1423. 1424. 1425. 1426. 1427. 1428. 1429. 1430. 1431. 1432. 1433. 1434. 1435. 1436. 1437. 1438. 1439. 1440. 1441. 1442. 1443. 1444. 1445. 1446. 1447. 1448. 1449. 1450. 1451. 1452. 1453. 1454. 1455. 1456. 1457. 1458. 1459. 1460. 1461. 1462. 1463. 1464. 1465. 1466. 1467. 1468. 1469. 1470. 1471. 1472. 1473. 1474. 1475. 1476. 1477. 1478. 1479. 1480. 1481. 1482. 1483. 1484. 1485. 1486. 1487. 1488. 1489. 1490. 1491. 1492. 1493. 1494. 1495. 1496. 1497. 1498. 1499. 1500. 1501. 1502. 1503. 1504. 1505. 1506. 1507. 1508. 1509. 1510. 1511. 1512. 1513. 1514. 1515. 1516. 1517. 1518. 1519. 1520. 1521. 1522. 1523. 1524. 1525. 1526. 1527. 1528. 1529. 1530. 1531. 1532. 1533. 1534. 1535. 1536. 1537. 1538. 1539. 1540. 1541. 1542. 1543. 1544. 1545. 1546. 1547. 1548. 1549. 1550. 1551. 1552. 1553. 1554. 1555. 1556. 1557. 1558. 1559. 1560. 1561. 1562. 1563. 1564. 1565. 1566. 1567. 1568. 1569. 1570. 1571. 1572. 1573. 1574. 1575. 1576. 1577. 1578. 1579. 1580. 1581. 1582. 1583. 1584. 1585. 1586. 1587. 1588. 1589. 1590. 1591. 1592. 1593. 1594. 1595. 1596. 1597. 1598. 1599. 1600. 1601. 1602. 1603. 1604. 1605. 1606. 1607. 1608. 1609. 1610. 1611. 1612. 1613. 1614. 1615. 1616. 1617. 1618. 1619. 1620. 1621. 1622. 1623. 1624. 1625. 1626. 1627. 1628. 1629. 1630. 1631. 1632. 1633. 1634. 1635. 1636. 1637. 1638. 1639. 1640. 1641. 1642. 1643. 1644. 1645. 1646. 1647. 1648. 1649. 1650. 1651. 1652. 1653. 1654. 1655. 1656. 1657. 1658. 1659. 1660. 1661. 1662. 1663. 1664. 1665. 1666. 1667. 1668. 1669. 1670. 1671. 1672. 1673. 1674. 1675. 1676. 1677. 1678. 1679. 1680. 1681. 1682. 1683. 1684. 1685. 1686. 1687. 1688. 1689. 1690. 1691. 1692. 1693. 1694. 1695. 1696. 1697. 1698. 1699. 1700. 1701. 1702. 1703. 1704. 1705. 1706. 1707. 1708. 1709. 1710. 1711. 1712. 1713. 1714. 1715. 1716. 1717. 1718. 1719. 1720. 1721. 1722. 1723. 1724. 1725. 1726. 1727. 1728. 1729. 1730. 1731. 1732. 1733. 1734. 1735. 1736. 1737. 1738. 1739. 1740. 1741. 1742. 1743. 1744. 1745. 1746. 1747. 1748. 1749. 1750. 1751. 1752. 1753. 1754. 1755. 1756. 1757. 1758. 1759. 1760. 1761. 1762. 1763. 1764. 1765. 1766. 1767. 1768. 1769. 1770. 1771. 1772. 1773. 1774. 1775. 1776. 1777. 1778. 1779. 1780. 1781. 1782. 1783. 1784. 1785. 1786. 1787. 1788. 1789. 1790. 1791. 1792. 1793. 1794. 1795. 1796. 1797. 1798. 1799. 1800. 1801. 1802. 1803. 1804. 1805. 1806. 1807. 1808. 1809. 1810. 1811. 1812. 1813. 1814. 1815. 1816. 1817. 1818. 1819. 1820. 1821. 1822. 1823. 1824. 1825. 1826. 1827. 1828. 1829. 1830. 1831. 1832. 1833. 1834. 1835. 1836. 1837. 1838. 1839. 1840. 1841. 1842. 1843. 1844. 1845. 1846. 1847. 1848. 1849. 1850. 1851. 1852. 1853. 1854. 1855. 1856. 1857. 1858. 1859. 1860. 1861. 1862. 1863. 1864. 1865. 1866. 1867. 1868. 1869. 1870. 1871. 1872. 1873. 1874. 1875. 1876. 1877. 1878. 1879. 1880. 1881. 1882. 1883. 1884. 1885. 1886. 1887. 1888. 1889. 1890. 1891. 1892. 1893. 1894. 1895. 1896. 1897. 1898. 1899. 1900. 1901. 1902. 1903. 1904. 1905. 1906. 1907. 1908. 1909. 1910. 1911. 1912. 1913. 1914. 1915. 1916. 1917. 1918. 1919. 1920. 1921. 1922. 1923. 1924. 1925. 1926. 1927. 1928. 1929. 1930. 1931. 1932. 1933. 1934. 1935. 1936. 1937. 1938. 1939. 1940. 1941. 1942. 1943. 1944. 1945. 1946. 1947. 1948. 1949. 1950. 1951. 1952. 1953. 1954. 1955. 1956. 1957. 1958. 1959. 1960. 1961. 1962. 1963. 1964. 1965. 1966. 1967. 1968. 1969. 1970. 1971. 1972. 1973. 1974. 197

1160

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

OEP PERMIT NUMBER

CE-81-11135

(THIS NUMBER IS TO BE PUNCHED
IN COLS 3-6 ON ALL CARDS)

Date Received

070681

OWNER INFORMATION

BRADLEY ROBERT

5 KIRK RD.

PERKYVILLE MD 21903

DRILLER INFORMATION

DONALD S. NEWNAS 138

SHORE WELL DRILLERS

CECILTON, MD

Donald S. Newnas 7/5/84

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV
☐ OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 100 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

- BORED (or Augered) JETTED Jelled & DRIVEN
 AIR-ROTARY AIR-Percussion ROTARY (Hydraulic Rotary)
 CABLE REVERSE-ROTARY Drive-POINT
 other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☒ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEM AN EXISTING WELL
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE 11135

SPECIAL CONDITIONS

3

LOCATION OF WELL Replacement

CECILTON

GREENBANK

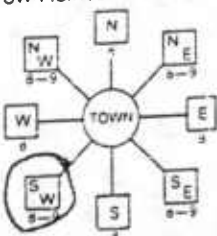
SECTION 44 LOT 44

CHARLESTOWN

MILES FROM TOWN (enter 0 if in town) 1.5

4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

30
DISTANCE FROM ROAD
ENTER FT. OR MI. 1/2

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP

SIGNATURE

DATE ISSUED

071684

CO SIGNATURE

NORTH GRID

629000

EAST GRID

108000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

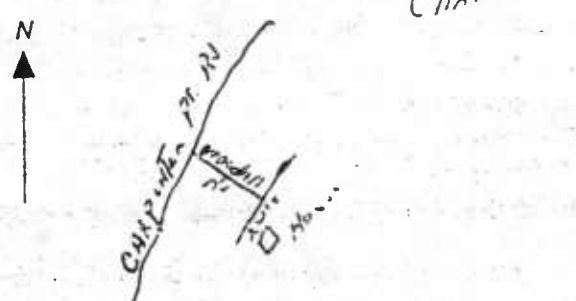
SOURCES OF DRILLING WATER

1. Town - CECILTON
 2.
 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

1680
620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 2837

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTERCOUNTY
NUMBER Replacement(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE Received

NOV 18 1984

DATE WELL COMPLETED

11 05 84

Depth of Well

22 8 6
(TO NEAREST FOOT)

PERMIT NO.

C2-31-11 35

OWNER Bradley, Robert

first name

TOWN Perryville, Maryland

STREET OR RFD 85 Kirk Road

SUBDIVISION Greenbank

SECTION

C 3

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
top soil	0	2	
yellow-white- gray clay	2	42	
red-white clay	42	55	
white clay-sand	55	76	
coarse white sand	76	86	

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT ☒ M BENTONITE CLAY ☒ B C

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER NO. ANNULAR SPACE
DEPTH OF GROUT SEAL (to nearest foot)from to
(enter 0 if from surface)casing
types
insert
appropriate
code
below

CASING RECORD

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN CASING TYPE Nominal diameter Top (main) casing (nearest inch) Total depth of main casing (nearest foot)

S T 4 7 3

OTHER CASING (if used)
diameter inch depth (feet) from to
S T 2 1/2 72 81screen type
or open holeinsert
appropriate
code
below

SCREEN RECORD

ST BR HO
STEEL BRASS OPEN
HOLE
PL OT
PLASTIC OTHER

ZEMBOLOG SUBMERG

DEPTH (nearest foot)

S T 8 2 8 6

SLOT SIZE 15
DIAMETER OF SCREEN 3 INCHES (N.C.)GRAVEL PACK
IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)T (E.R.O.S.)
70 72
TELESCOPE CASING LOG INDICATORWO
74 75 76
OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour) 8

PUMPING RATE (gal. per min. to nearest gal.) 25

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 4

WHEN PUMPING 4 2

TYPE OF PUMP USED (if not listed)

A air P piston T turbine

C centrifugal R rotary O other

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES

(CIRCLE) (YES or NO)

IF DRILLER INSTALLS PUMP, THIS SECTION

MUST BE COMPLETED FOR ALL WELLS

EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,P,R,S,T,O)

IN BOX - SEE ABOVE.

CAPACITY

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

CASING HEIGHT (circle appropriate box

and enter casing height)

above

below

LAND SURFACE

1

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

well X 3'

CIRCLE APPROPRIATE LETTER
A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE.

DRILLER'S IDENT. NO. 139

DRILLER'S SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

ORIGINAL

B 1 0148

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

CE 8 1 1 2 2 2

fill in this form completely

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-8 ON ALL CARDS)

Date Received

091484

OWNER INFORMATION

PETERSON Owner First Name

321 POPULAR POINT RD Street or RFD

PERRYVILLE Md 21903

DRILLER INFORMATION

WALTER J. FRANK

FRANK'S WELL DRILLING CO.

704 ST. Smallwood BALTO. Md. 21226

Walter J. Frank 9-12-84

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 120 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)

CABLE REVERSE-ROTARY Drive-POINT

other

REPLACEMENT OR DEEPEINED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED
(IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER

FORCE PERMIT NO. CE-B 1-12223

SPECIAL CONDITIONS

ORIGINAL

LOCATION OF WELL

CECIL 86303

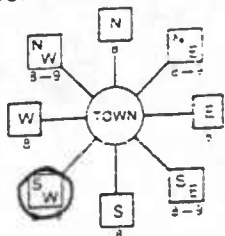
POPLAR POINT

SECTION 44 LOT 11 B-6353

CHARLESTOWN

MILES FROM TOWN (enter 0 if in town) 2.9

B 4

DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)

POPLAR POINT ROAD

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD

ENTER FT. OR YD. 100

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP

SIGNATURE

DATE ISSUED

091984

COUNTY SIGNATURE

NORTH GRID

626000

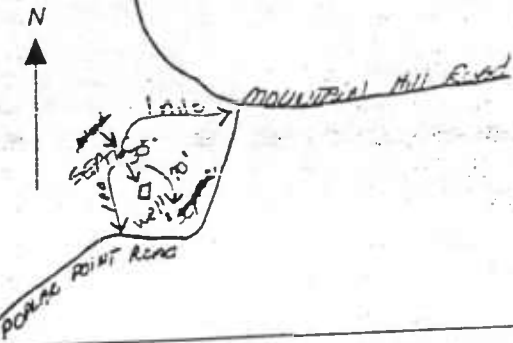
EAST GRID

1073000

SHOW MAJOR FEATURES OF
BOX & LOCATE WELL
WITH AN X

SOURCES OF DRILLING WATER

- 1.
- 2.
- 3.

WRITE THE BOX NUMBER
FROM THE MAP HERE1070
630DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

C1-3834

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETEDCOUNTY
NUMBER

B6383

DATE Received

DATE WELL COMPLETED

Depth of Well

FROM PERMIT NO.

SEP 27 1984

092584

22 63 26
(TO NEAREST FOOT)

C3-81 1223

OWNER

PETERSON

LOUIS

STREET OR RFD

last name 321 POPLAR POINT RD.

TOWN

CHARLESTOWN

SUBDIVISION

POPULAR POINT

SECTION

LOT 11

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed) FEET
FROM TO Check
if water
bearing

SAND	0	10
GRAVEL, SAND + white clay	10	20
SAND	20	30
SAND + Red clay	30	40
SAND + white clay	40	50
gray clay	50	57
SAND	57	63 XXX

GROUTING RECORD

WELL HAS BEEN GROUTED

(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM

BENTONITE CLAY BC

NO. OF BAGS 3 NO. OF POUNDS 150

GALLONS OF WATER

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 30 ft.
(center 0 if from surface)casing
types
insert
appropriate
code
below

CASING RECORD

ST	CO
STEEL	CONCRETE
PL	OT
PLASTIC	OTHER

MAIN Casing Nominal diameter Total depth
TYPE (nearest inch) of main casing (nearest foot)

PL 4 56

OTHER CASING (if used)

diameter depth (feet)
inch from to

screen type
or open hole
insert
appropriate
code
below

SCREEN RECORD

ST	BR	HO
STEEL	BRASS	OPEN
	BRONZE	HOLE
PL	OT	
PLASTIC	OTHER	

C2

DEPTH (nearest ft.)

PL	56	63

SLOT SIZE 0.20

DIAMETER OF SCREEN 2 (NEAREST INCH)

GRAVEL PACK

from 56 to 63

IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 58

OEP USE ONLY

(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

70 72

TELESCOPE

LOG

CASING

INDICATOR

WQ
74 75 76
OTHER DATA

C3

PUMPING DATA

HOURS PUMPED (nearest hour) 5

PUMPING RATE (gal. per min.) 15

METHOD USED TO

MEASURE PUMPING RATE 5 GAL. BUCKET

WATER LEVEL (distance from land surface)

BEFORE PUMPING 23

WHEN PUMPING 32

TYPE OF PUMP USED (not test)

A piston T turbine

C centrifugal R rotary O other

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

(CIRCLE) (YES or NO)
IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USETYPE OF PUMP INSTALLED
PLACE (A, C, J, P, R, S, T, O)
IN BOX - SEE ABOVECAPACITY
GALLONS PER MINUTE
(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

CASING HEIGHT (circle appropriate box
and enter casing height)

+ above } LAND SURFACE

- below } 1 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND/OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

7.30'
1.10'
POPULAR POINT RD.
MOUNTAIN HILL ROAD

CIRCLE APPROPRIATE LETTER
A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE

DRILLERS IDENT. NO.

5

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

ORIGINAL

B 1 4165 SEQUENCE NO. (OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER
CE-81-1-231

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

Date Received 092484
OWNER INFORMATION
NEIDLEIN SONDRAR
220 JACKSON STAT RD
PERRYVILLE MD 21903

DRILLER INFORMATION
CHARLES H. HAMILTON JR 112
JONES & HAMILTON
115 N. PARADISE RD. HOG-
Charles H. Hamilton Jr. 9/24/84

WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.) 10
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1800

- USE FOR WATER (CIRCLE APPROPRIATE BOX)
- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
 - ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
 - ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
 - ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
 - ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE Reverse-ROTARY Drive-POINT
other

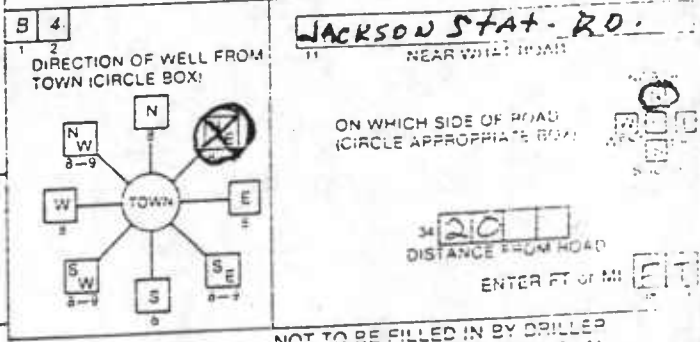
REPLACEMENT OR DEEPEENED WELLS (CIRCLE APPROPRIATE BOX)
☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEENED (IF AVAILABLE) 41

Not to be filled in by driller (OEP USE ONLY)
APPROX. PERMIT NUMBER GAP

FORCE 1 WRITE INITIALS IN BOX PERMIT NO. CE-81-1-231

SPECIAL CONDITIONS

LOCATION OF WELL
CECIL
23 SUBDIVISION
SECTION 38 LOT 30
PERRYVILLE
MILES FROM TOWN (enter 0 if in town) 2.3 MI



NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME
OEP SIGNATURE
DATE ISSUED 092484 Charles E. Simpson 3/24/84
NORTH GRID 638000 EAST GRID 1070000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1.
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070 1070
N 6380 6380

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

well goes in front yard -

C1 3842

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETEDCOUNTY
NUMBER ReplacementTHIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED

OCT 3 1984

DATE WELL COMPLETED

09 25 84

Depth of Well:

22 160
(TO NEAREST FOOT)PERMIT NO.
FROM PERMIT TO COMPLETION

CE-81-1231

OWNER

last name NEIDLEIN first name SANDRA

TOWN

DERRY TOWN

STREET OR RFD

220 JACKSON STATION RD.

SECTION

LOT

SUBDIVISION

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

FROM TO

Check
if water
bearingYELLOW
SANDY CLAY

0 18

SOFT GREEN
Rock

18 28

HARD GREEN
GRAY
GRANITE

28 160

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

Y N

TYPE OF GROUTING MATERIAL

CEMENT C BENTONITE CLAY BC

NO. OF BAGS 8 NO. OF POUNDS 752

GALLONS OF WATER 40

DEPTH OF GROUT SEAL (to nearest foot)

from 0 30 ft. to 30 30
(center 0 if from surface)

CASING RECORD

Casing
types
insert
appropriate
code
belowST CO
STEEL CONCRETE
PL OT
PLASTIC OTHERMAIN CASING TYPE Nominal diameter
100 (main casing
(nearest inch) of main casing
(nearest foot)

ST 6 30

OTHER CASING (if used)
diameter depth (feet)
inch from to

EACH CASING

screen type
or open hole

SCREEN RECORD

insert
appropriate
code
belowST BR HO
STEEL BRASS OPEN
HOLE
PL PL OT
PLASTIC OTHER

C2

DEPTH (nearest ft.)

40 30 160

SLOT SIZE

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK
IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 58OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

70 72

TELESCOPE LOG
CASING INDICATORW/O
74 75 76
OTHER DATA

C3

PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min.
to nearest gal.)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (for test)

A air P piston T turbine
C centrifugal R rotary O other
J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES
(CIRCLE) (YES or NO)
IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A, C, P, R, S, T, O)
IN BOX SEE ABOVECAPACITY:
GALLONS PER MINUTE
(to nearest gallon)
PUMP HORSE POWERPUMP COLUMN LENGTH
(nearest ft.)CASING HEIGHT (circle appropriate box
and enter casing height)LAND SURFACE
+ above }
- below }

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)WELL #20
JACKSON STATION
Rd.CIRCLE APPROPRIATE LETTER
A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 18.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE.

DRILLERS IDENT. NO.

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

ORIGINAL

10/3/84 Rec. #2251-122
B 1 1190
SEQUENCE NO. (OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER

CE-81-4452

fill in this form completely

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

Date Received

100384

OWNER INFORMATION

Owner: 61111941

15 Last Name: Chestnut

36 Pennyville

DRILLER INFORMATION

Driller's Name: Fred K. Kiehl

96

Address: Middle between Kiehl Drilling Co

Address: 15730

Address: 10-1-84

WELL INFORMATION

B 2

APPROX. PUMPING RATE (GAL. PER MIN.): 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL: 120

APPROXIMATE DIAMETER OF WELL: 4

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jettied & DRIVEN
AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY DRIVE-POINT
other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ N THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☒ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ D THIS WELL WILL DEEPMEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE):

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER: GAP

FORCE: WRITE INITIALS IN BOX PERMIT No. CE-81-1250

SPECIAL CONDITIONS

ORIGINAL

B 3

LOCATION OF WELL

Standby

23 SUBST. BOX

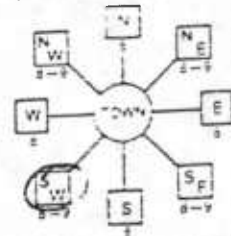
SECTION: 40 LOT: 40

40 NEAREST TOWN: Chestnut

MILES FROM TOWN (enter 0 if in town): 1.8

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



NEAR WHAT ROAD

Chestnut Point Rd.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

10

DISTANCE FROM ROAD

ENTER FT. OR MI.

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME: Cecil

OEP SIGNATURE: Charles E. Simpson

DATE ISSUED: 101184

NORTH GRID: 6270000

EAST GRID: 1080000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL

WITH AN X

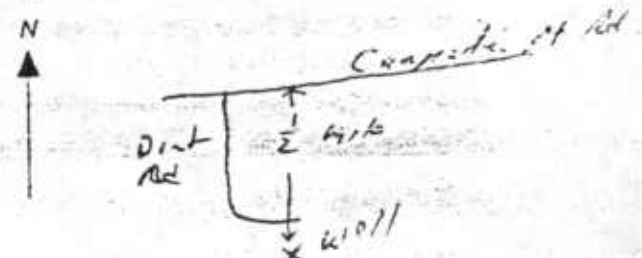
SOURCES OF DRILLING WATER

1. can well only
2.
3.

WRITE THE BOX NUMBER FROM THE MAP HERE

1080

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



3861 SEQUENCE NO. (OEP USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED
COUNTY NUMBER Standby

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE RECEIVED
NOV 24 1984

DATE WELL COMPLETED
10 22 84

Depth of Well
50 (TO NEAREST FOOT)

FROM PERMIT TO DRILL WELL
08-81-1250

OWNER Craig last name 186 Chestnut St TOWN Radysville LOT 1
STREET OR RFD
SUBDIVISION

WELL LOG
Not required for driven wells
STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
Top soil & clay	0	5	
Prudersand + clay	5	40	
Medium to coarse Brown + white sand	40	50	✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box)
TYPE OF GROUTING MATERIAL
CEMENT CM SEMENTONITE CLAY BC
NO. OF BAGS 16 NO. OF POUNDS 160
GALLONS OF WATER 5
DEPTH OF GROUT SEAL (to nearest foot)
from 0 to 4 ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN CASING TYPE
Nominal diameter top (nearest inch) Total depth of main casing (nearest foot)
ST 4 46

OTHER CASING (if used)
diameter inch depth (feet) from to

SCREEN RECORD
screen type or open hole insert appropriate code below
ST BR HO
STEEL BRASS OPEN HOLE
PL OT
PLASTIC OTHER

C 2

EACH SCREEN	DEPTH (nearest ft.)	
	1	2
1	<u>ST</u> <u>46</u>	<u>50</u>
2		
3		

SLOT SIZE 50
DIAMETER OF SCREEN 3 (NEAREST INCH)
from to

GRAVEL PACK
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) WQ
70 71 72 73 74 75 76
TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3
PUMPING TEST
HOURS PUMPED (nearest hour)
PUMPING RATE (gal. per min. to nearest gal.)
METHOD USED TO MEASURE PUMPING RATE
WATER LEVEL (distance from land surface)
BEFORE PUMPING
WHEN PUMPING
TYPE OF PUMP USED FOR TEST
A air P piston T turbine
C centrifugal R rotary O other
J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (YES NO)
(CIRCLE) (YES OR NO)
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE IN BOX - SEE ABOVE:
CAPACITY, GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above
- below
LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

Handwritten notes and signature:
25' 15' 15'
Pitless Adapter
Chestnut St Rd

CIRCLE APPROPRIATE LETTER
A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 96
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

4180

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

CE 81 1277

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

Date Received

110584

OWNER INFORMATION

MEGUIRK RONALD A

49 JACKSON STAR RD

PERRYVILLE MD 21903

DRILLER INFORMATION

CHARLES H. HAMILTON Jr 1112

JONES & HAMILTON

115 N. PARADISE RD. HD6-

Charles H. Hamilton Jr. 10/27/84

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

- ☐ BORED (or Augered) ☒ JETTED ☐ Jettied & DRIVEN
☐ AIR-ROTARY ☒ AIR-PERCUSSION ☐ ROTARY (Hydraulic Rotary)
☐ CABLE ☐ REVERSE-ROTARY ☐ DRIVE-POINT
 other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPM AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER

FORCE INITIALS PERMIT NO. CE-81-1277

SPECIAL CONDITIONS

B 3

LOCATION OF WELL

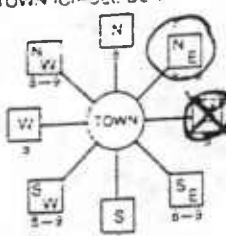
CECIL

SECTION 21 46 LOT 25 30

PERRYVILLE

MILES FROM TOWN (enter 0 if in town) 2.4 MI

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



JACKSON STATION

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



DISTANCE FROM ROAD

ENTER FT. OR MI

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP SIGNATURE

DATE ISSUED

110784

Charles E. Simpson

5/7/85

NORTH GRID

637000

EAST GRID

7071000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

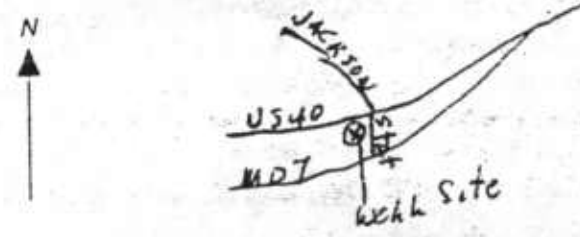
SOURCES OF DRILLING WATER

- 1.
- 2.
- 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

1070
630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



well goes far left rear of lot -

ORIGINAL

C1 3891

SEQUENCE NO.
(DEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED
45 DAYS AFTER WELL IS COMPLETECOUNTY
NUMBER

B6288

1 2 3
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-8 ON ALL CARDS)

DATE Received

DEC 1 1984

DATE WELL COMPLETED

11/28/84

Depth of Well

22 250 26
(TO NEAREST FOOT)FROM PERMIT TO
C 3 - 8 1 - 1 2 7 7

OWNER

last name McGuirk first name Ronald A

TOWN

DERRYVILLE, MD 21442

STREET OR RFD

last name 49 Jackson Station Rd SECTION

SUBDIVISION

LOT

WELL LOG
Not required for driven wellsSTATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

FROM TO

Check
if water
bearingYELLOW
SAND &
GRAVEL

0 45

Hard GRAY
GRANITE

45 250

GROUTING RECORD
WELL HAS BEEN GROUTED
(Circle Appropriate Box)

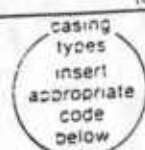
Y N

TYPE OF GROUTING MATERIAL

CEMENT CMBENTONITE CLAY BCNO. OF BAGS 13 NO. OF POUNDS 1232GALLONS OF WATER 65

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 49 ft. (enter 0 if from surface)



CASING RECORD

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN CASING TYPE Nominal diameter of main casing (nearest inch) Total depth of main casing (nearest foot)

ST 6 49

OTHER CASING (if used)

diameter inch depth (feet) from to

screen type
or open hole
insert
appropriate
code
below

SCREEN RECORD

ST BR HO
STEEL BRASS OPEN
HOLE
PL OT
PLASTIC OTHERMINIMUM
DEPTH
IN
FOOT
INCHES

DEPTH (nearest ft.)

40	49	250
3	11	17
23	24	25
26	27	28
29	30	31
32	33	34
35	36	37
38	39	40
41	42	43
44	45	46
47	48	49
50	51	52

SLOT SIZE 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

GRAVEL PACK

IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68

DEP USE ONLY

(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

WO

TELESCOPE
CASINGLOG
INDICATOR74 75 76
OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal per min)

to nearest gal

MEAS. MOD USED TO

MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (for test)

A air P piston T turbine
C centrifugal R rotary O other
J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES
(CIRCLE) (YES OR NO)
IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A, C, J, P, R, S, T, O)
IN BOX - SEE ABOVE

CAPACITY

GALLONS PER MINUTE
(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH
(nearest ft.)CASING HEIGHT (circle appropriate box
and enter casing height)

+ above

- below

LAND SURFACE

LOCATION OF WELL ON LOT

A SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS AND OF
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

LANE

House

Prop Line

Jackson Station Rd

CIRCLE APPROPRIATE LETTER
A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE.DRILLERS IDENT. NO. 112DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

ORIGINAL

B 7 0591

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

GINT 11 1340

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 1-6 ON ALL CARDS)

Date Received

112884

OWNER INFORMATION

ALEXANDER JOE S H

1223 DIXIE AVE

PERRYVILLE MD

DRILLER INFORMATION

R. SEWARD

283

R. Seward & Son

2020 OLD COUNTY RD NEWARK DE.

11/23/84

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 600

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV.
- ☐ OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 200 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

- ☐ BORED (or Augered) ☐ JETTED ☐ Jetted & DRIVEN
- ☐ AIR-ROTARY ☐ AIR-PERCussion ☒ ROTARY (Hydraulic Rotary)
- ☐ CABLE ☐ REVERSE-ROTARY ☐ Drive-POINT
- other _____

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEMED AN EXISTING WELL
- PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) _____

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER _____

FORCE _____ WRITE INITIALS IN BOX PERMIT No. CE-81-1340

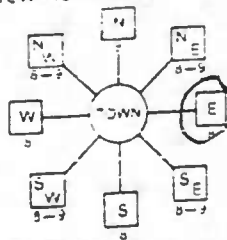
SPECIAL CONDITIONS

ORIGINAL

LOCATION OF WELL

SECTION _____ LOT _____

MILES FROM TOWN (enter 0 if in town) _____

DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD

ENTER FT. OR MI.

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP

SIGNATURE

DATE ISSUED

1121984

Charles E. Smyser 5/29/85

NORTH GRID 630000

EAST GRID 11076000

SHOW MAJOR FEATURES OF
BOX & LOCATE WELL
WITH AN X

SOURCES OF DRILLING WATER

1. WELL
- 2.
- 3.

WRITE THE BOX NUMBER
FROM THE MAP HEREE 1070
N 630000
000DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

C1 3950

SEQUENCE NO.
(OEP USE ONLY)(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED
45 DAYS AFTER WORK IS DONECOUNTY
NUMBER

BALTIMORE

DATE Received

021585

DATE WELL COMPLETED

070795

Depth of Well

157
(TO NEAREST FOOT)

FROM PERMIT NO. 1340

OWNER ALEXANDER JOSEPH

first name

TOWN PERRY HILL

STREET OR RFD 1213 Aiken Ave

SECTION

LOT

SUBDIVISION

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

FROM TO

THICK-
ness
water
bearing

TOP SOIL	0	1
GRAY CLAY	1	9
MULTI COLOR CLAY	8	31
SAND & GRAVEL	21	26
RED CLAY	25	38
COARSE SAND	38	70
RED CLAY	70	109
FINE SAND	109	120
GRAY CLAY	120	148
COARSE SAND	148	159

GROUTING RECORD

WELL HAS BEEN GROUTED

(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT ☒ M BENTONITE CLAY ☒ B C

NO. OF BAGS 4 NO. OF POUNDS 200

GALLONS OF WATER 200

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 28 ft.

(enter 0 if from surface)

casing
types
insert
appropriate
code
below

CASING RECORD

ST	CO
STEEL	CONCRETE
PL	OT
PLASTIC	OTHER

MAIN Nominal diameter Total depth
CASING top (main) casing of main casing
TYPE (nearest inch) (nearest foot)

PL 4 147

OTHER CASING (if used)

diameter depth (feet)

inch from to

screen type
or open hole

SCREEN RECORD

insert
appropriate
code
below

ST	BR	HIO
STEEL	BRASS	OPEN
	BRONZE	HOLE
	PL	OT
	PLASTIC	OTHER

C2

DEPTH (nearest ft.)

1	PL	147	157
2			
3			
4			
5			
6			
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48			
49			
50			

SLOT SIZE 20 2

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK 747 to 157
IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

70 72

TELESCOPE

CASING

LOG

INDICATOR

WG
74 75 76
OTHER DATA

PUMPING RECORD

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gpm) 32

to nearest gallon

METHOD USED TO

MEASURE PUMPING RATE BACKLIFT

WATER LEVEL (distance from ground surface)

BEFORE PUMPING 90

WHEN PUMPING 157

TYPE OF PUMP USED (circle appropriate letter)

A Centrifugal P Piston T Turbine

C Centrifugal P Piston O Other

J Jet S Submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES

(CIRCLE) (YES or NO)

IF DRILLER INSTALLS PUMP, THIS SECTION

MUST BE COMPLETED FOR ALL WELLS

EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A, C, J, P, R, S, O)

IN BOX SEE ABOVE

CAPACITY

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

CASING HEIGHT (circle appropriate box

and enter casing height)

LAND SURFACE

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS

BUILDING, SEPTIC TANKS, AND/OR

LANDMARKS AND INDICATE NOT LESS

THAN TWO DISTANCES

(MEASUREMENTS TO WELL)

HOUSE 36' 2" W

SOUTH D/L

39'

183

DRILLERS IDENT. NO.

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman

responsible for sitework if different from permittee)

ORIGINAL

B 1 1132

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER

CE-81-1480

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

Date Received

041885

OWNER INFORMATION

Antheiser Robert

85 Chestnut Ave

Perryville Md 21903

DRILLER INFORMATION

Vernon Kirk 159

Vernon Kirk Well Drilling

211 Wench Rd Perryville, Md.

Vernon Kirk 4-18-85

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 7

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 7600

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☒ INDUSTRIAL, COMMERCIAL STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 00 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

- ☐ BORED (or Augered)
- ☐ JETTED
- ☐ Jetted & DRIVEN
- ☐ AIR ROTARY
- ☐ AIR PERCUSSION
- ☐ ROTARY (Hydraulic Rotary)
- ☒ CABLE
- ☐ REVERSE ROTARY
- ☐ Drive-POINT

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ N THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ D THIS WELL WILL DEEPM AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER CE66 GAP 020

FORCE CS PERMIT NO. CE-81-1480

SPECIAL CONDITIONS

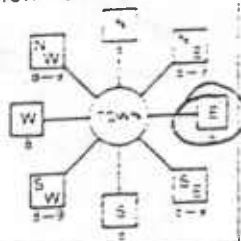
B 3

LOCATION OF WELL

CE-81-1480
SECTION 44 LOT 40
MILES FROM TOWN center 3.4

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Carpenters Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

50 DISTANCE FROM ROAD

ENTER FT. OF W. 50

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP SIGNATURE

DATE ISSUED

042485 Charles E. Smyser 20/2/85

NORTH GRID

628 000

EAST GRID

1078 000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

- 1. Well water
- 2.
- 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

1070
630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N



Sketch showing location of well in relation to nearby towns and roads. Labels include: Perryville, H. H. R. Rd, and X well.

C1 8718 SEQUENCE NO. (OEP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED
45 DAYS AFTER WELL IS COMPLETED
COUNTY
NUMBER 0000000000000000

DATE RECEIVED

JUN 4 1965

DATE WELL COMPLETED

05/02/85

Depth of Well

85 (TO NEAREST FOOT)

FROM PERMIT NO. 1480

OWNER Fronheiser, Robert

first name TOWN Perryville

STREET OR RFD 85 Chestnut Pt. Rd

SECTION

SUBDIVISION

WELL LOG
Not required for driven wells
STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)

FEET
FROM TO

Check if water bearing

Top soil 0 2
Brown gravel 2 20
+ sand
Blue clay 20 40
white clay 40 75
+ sand
white sand 75 85 ✓

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO OF BAGS 4 NO OF POUNDS 376

GALLONS OF WATER 24

DEPTH OF GROUT SEAL (to nearest foot)

from 2 ft to 20 ft
(enter 0 if from surface)

casing types
insert appropriate code below

CASING RECORD

ST CO

PL OT

STEEL CONCRETE
PLASTIC OTHER

MAIN CASING TYPE
Nominal diameter top (main) casing (nearest inch)
Total depth of main casing (nearest foot)

5 6 80

OTHER CASING (if used)
diameter inch depth (feet) from to

screen type or open hole
insert appropriate code below

SCREEN RECORD

ST BR HO

STEEL BRASS OPEN HOLE

PL OT

PLASTIC OTHER

C2

DEPTH (nearest ft.)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SLOT SIZE 1 2 3
DIAMETER OF SCREEN 6 (NEAREST INCH)

from to

GRAVEL PACK
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) WO
70 72 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

C3

HOURS PUMPED

PUMPING RATE (gal per min) 15

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from surface)

BEFORE PUMPING 40

WHEN PUMPING 60

TYPE OF PUMP USED

A air P piston

C centrifugal R rotary

J jet S submersible

Bailer

PUMP INSTALLED

DRILLER WILL INSTALL PUMP (CIRCLE) YES or NO

IF DRILLER INSTALLS PUMP THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE A C U P R S T C IN BOX SEE ABOVE

CAPACITY GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

LAND SURFACE

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURES SUCH AS BUILDING SEPTIC TANKS AND OTHER LANDMARKS AND INDICATE NO LESS THAN TWO DISTANCES MEASUREMENTS TO WELL

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 159

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

Emergency Permit

SEQUENCE NO.
(OEP USE ONLY)

9748

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

051785 81 1544

(THIS NUMBER IS TO BE PUNCHED
IN CCLS. 35 ON ALL CARDS)

Date Received

051785

OWNER INFORMATION

MUSIC ARVEL B

141 JACKSON STATION RD

PERRYVILLE MD 21903

DRILLER INFORMATION

Constantine DiFilippo

C. DiFilippo Well Drilling Inc.

2235 Blueball Rd Elton, Md. 21921

Constantine DiFilippo 5-17-85

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 6

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 800

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

- ☐ BORED (or Augered) ☒ JETTED ☐ Jetted & DRIVEN
- ☐ AIR-ROTARY ☒ AIR-PERCUSSION ☐ ROTARY (Hydraulic Rotary)
- ☐ CABLE ☐ REVERSE-ROTARY ☐ DRIVE-POINT
- other _____

REPLACEMENT OR DEEPEINED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☒ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEIN AN EXISTING WELL
- PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 _____ 52

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER _____

FORCE _____ PERMIT NO. 05-81-1544

SPECIAL CONDITIONS

ORIGINAL

LOCATION OF WELL

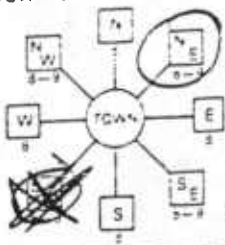
Cecil

SECTION _____ LOT _____

PERRYVILLE

MILES FROM TOWN (enter 0 if in town) 2.4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

200
DISTANCE FROM ROAD
ENTER FT. OR MI.NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP SIGNATURE

DATE ISSUED

051785

NORTH GRID 637000

EAST GRID 1071000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

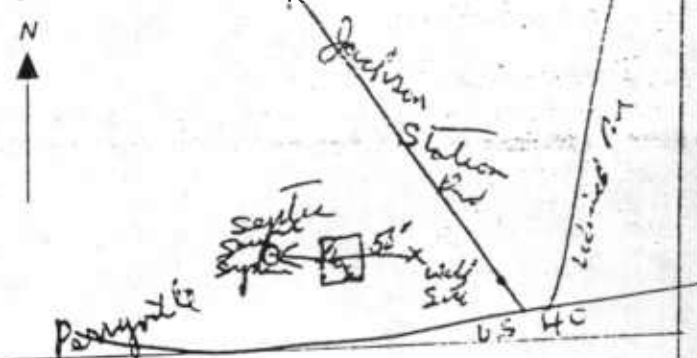
SOURCES OF DRILLING WATER

- well
-
-

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C-1 2954 SEQUENCE NO. (OEP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED
45 DAYS AFTER WELL COMPLETION
COUNTY NUMBER 3720107

DATE RECEIVED
SEP 27 1985

DATE WELL COMPLETED
SEP 27 1985

Depth of Well
22 200
(TO NEAREST FOOT)

81 1544

OWNER MUSIC ARCEL B first name TOWN PERRYVILLE
STREET OR RFD 141 JACKSON STATION RD
SUBDIVISION SECTION

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed) FEET FROM TO Check if water bearing

typical gravel & clay 0 70
lt gray granite 70 120 ✓
Granite 120 122 ✓
dk gray granite 122 200 ✓

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box)

TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 16 NO. OF POUNDS 155
GALLONS OF WATER 80
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft to 75 ft
enter 0 if from surface

CASING RECORD
casing types insert appropriate code below
STEEL CONCRETE PLASTIC OTHER

MAIN CASING TYPE Nominal diameter (in) Total depth of main casing (nearest foot)
ST 6 25

OTHER CASING (if used) diameter (in) depth (feet) from to

SCREEN RECORD
screen type or open hole insert appropriate code below
STEEL BRASS BRONZE PLASTIC OPEN HOLE OTHER

DEPTH (nearest foot)
1 75 2 200
2 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 250
DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

SLOT SIZE 2 3
DIAMETER OF SCREEN (nearest inch) from to

GRAVEL PACK
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 58

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W O
70 72 74 75 76
TELESCOPE CASING LOG INDICATOR OTHER DATA

C-3

PUMPING RECORD
PUMPING RATE (to nearest gal/min)
METHOD USED TO MEASURE PUMPING RATE
WATER LEVEL (distance from ground surface) BEFORE PUMPING 50
WHEN PUMPING 100

TYPE OF PUMP USED (circle)
A air P piston C centrifugal R rotary J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) YES or NO
IF DRILLER INSTALLS PUMP, THIS WELL MUST BE COMPLETED FOR ALL USES EXCEPT HOME USE
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX SEE ABOVE
CAPACITY GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft)
CASING HEIGHT (circle appropriate box and enter casing height) above below LAND SURFACE

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURES, BUILDING, SEPTIC TANKS, AND LANDMARKS AND INDICATE DISTANCES LESS THAN TWO DISTANCES MEASUREMENTS TO WELL

ORIGINAL

PE 140. 6/7/85 Rec. #2818-132

EMERGENCY TEMP NO. IF ANY

B 1 7532

SEQUENCE NO.
(OEP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

011 181 1593

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-8 ON ALL CARDS)

Date Received

0 6 0 7 8 5

OWNER INFORMATION

MARSHALL E EARL

336 POPULAR POINT RD

PERRYVILLE MD 21903

DRILLER INFORMATION

WALTER J. FRANK

FRANK'S Well Drilling, INC.

7014 FT. SMALLWOOD BALD. 21226

Walter J. Frank 6-6-85

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 140 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

- BORED (or Augered) JETTED Jettied & DRIVEN
AIR-ROTARY AIR-PEPCUSSION ROTARY Hydraulic Rotary
CABLE REVERSE-ROTARY Drive-POINT
other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPM AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE INITIALS PERMIT No. CE-84-1593

SPECIAL CONDITIONS

B 3

LOCATION OF WELL

CECIL

POPULAR POINT

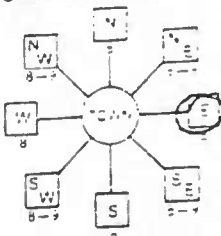
SECTION LOT 15

PERRYVILLE

MILES FROM TOWN (enter 0 if in town) 2.5

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

140

DISTANCE FROM ROAD ENTER FEET

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil
COUNTY NAME
OEP SIGNATURE

DATE ISSUED 062185

NORTH GRID 626 000

EAST GRID 1073 000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

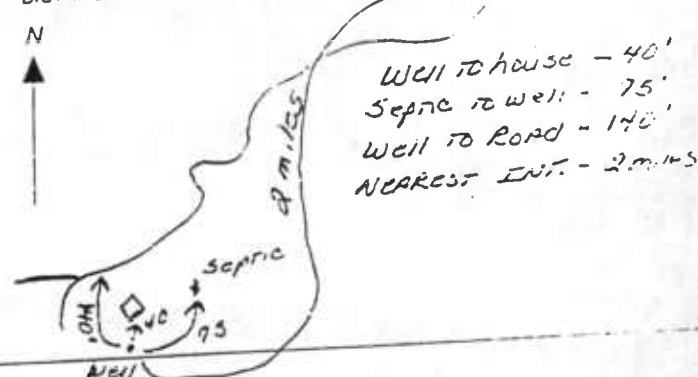
SOURCES OF DRILLING WATER

- 1.
- 2.
- 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

1070
620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND THE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

C1 2910
SEQUENCE NO. (OEP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE FILED IN 45 DAYS AFTER WELL COMPLETION
COUNTY NUMBER 274 3-2-1
81 1593

DATE RECEIVED AUG 14 1985
DATE WELL COMPLETED 080785
Depth of Well 105
(TO NEAREST FOOT)

OWNER MARSHALL
STREET OR RFD 336 POPLAR POINT RD.
SUBDIVISION POPLAR POINT SECTION TOWN PERRYVILLE LOT 15

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET	Check if water bearing
	FROM	TO
GRAVEL + SAND	0	10
WHITE CLAY	10	20
SAND + WHITE CLAY	20	30
WHITE CLAY	30	42
SAND	42	47
STONE (SAND ROCK)	47	50
STONE (SAND ROCK)	50	55
SAND	55	65
SAND + WHITE CLAY	65	70
SAND	70	75
SAND + WHITE CLAY	75	80
WHITE + PINK CLAY	80	90
RED CLAY	90	98
SAND	100	105 XXX

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box)
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 3 NO. OF POUNDS 150
GALLONS OF WATER 75
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 30 ft.
(Enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER
MAIN CASING TYPE PL
Nominal diameter 4
Total depth of main casing (nearest foot) 95

OTHER CASING (if used)
diameter inch
depth (feet) from to

SCREEN RECORD
screen type or open hole insert appropriate code below
ST BR HO
STEEL BRASS OPEN HOLE
PL OT
PLASTIC OTHER

DEPTH (nearest ft.)
P L 95 105
EACH SCREEN
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 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2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446

B 1 8233

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-8 ON ALL CARDS)

Date Received

081985

OWNER INFORMATION

15 LAST NAME COCK 34
16 FIRST NAME KCITH
25 STREET OR RD. 97 WOODALL RD. 33
32 TOWN CHARLES TOWN 30
31 STATE MD 32

DRILLER INFORMATION

DRILLER'S NAME DONALD S. HEUNAM 138
FIRM NAME SHORE WALL DRILLERS
ADDRESS CECIL TOWN, MD
Signature Donald S. Heunam Date 8/16/85

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 130 FEETAPPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY DRIVE-POINT
other

REPLACEMENT OR DEEPEPENED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ N THIS WELL WILL NOT REPLACE AN EXISTING WELL
☒ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEPENED (IF AVAILABLE) CE-81-1715

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAPFORCE CE-81-1715 PERMIT NO. CE-81-1715

SPECIAL CONDITIONS

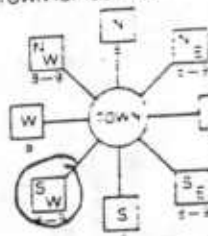
ORIGINAL

B 3

LOCATION OF WELL

COUNTY GREENSBORO
SUBDIVISION CHARTERED
SECTION 1 LOT 1
NEAREST ROAD WOODALL RD.
MILES FROM TOWN (enter 0 if in town) 1.4

B 4

DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)NEAR WHAT ROAD
WOODALL RD.ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)DISTANCE FROM ROAD
140
ENTER FT. OR MI.NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP

SIGNATURE

DATE ISSUED

082285

CO. SIGNATURE

NORTH GRID

630000

EAST GRID

108000

SHOW MAJOR FEATURES OF
BOX & LOCATE WELL
WITH AN X

SOURCES OF DRILLING WATER

1. Town - Cecil Town

2.

3.

WRITE THE BOX NUMBER
FROM THE MAP HERE

1080

630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

CHARTERED PT. RD.

WOODALL RD.

C1 9781

SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE FILED
45 DAYS AFTER COMPLETIONCOUNTY
NUMBER

TOWNSHIP

1 2 3
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE Received

OCT 22 1985

DATE WELL COMPLETED

101585

Depth of Well
116
FEET

C 81 1715

OWNER Cook, Kieth

STREET OR RFD 97 Woodall Rd.

SUBDIVISION Greenbank

TOWN Charlesdown, Md.

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed: FROM TO

FEET

Check
if water
bearingyellow-white sand-
gravel-clay
red-white-grey
clay
fine white sand-
clay
fine white sand0 35
35 85
85 101
101 116

GROUTING RECORD

WELL HAS BEEN GROUTED

(Circle appropriate box)

TYPE OF GROUTING MATERIAL

CEMENT CM

BENTONITE CLAY BC

NO. OF BAGS NO. OF CUBIC SPACE
GALLONS OF WATER
DEPTH OF GROUT SEAL (to nearest foot)

from 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100 102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172 174 176 178 180 182 184 186 188 190 192 194 196 198 200 202 204 206 208 210 212 214 216 218 220 222 224 226 228 230 232 234 236 238 240 242 244 246 248 250 252 254 256 258 260 262 264 266 268 270 272 274 276 278 280 282 284 286 288 290 292 294 296 298 300 302 304 306 308 310 312 314 316 318 320 322 324 326 328 330 332 334 336 338 340 342 344 346 348 350 352 354 356 358 360 362 364 366 368 370 372 374 376 378 380 382 384 386 388 390 392 394 396 398 400 402 404 406 408 410 412 414 416 418 420 422 424 426 428 430 432 434 436 438 440 442 444 446 448 450 452 454 456 458 460 462 464 466 468 470 472 474 476 478 480 482 484 486 488 490 492 494 496 498 500 502 504 506 508 510 512 514 516 518 520 522 524 526 528 530 532 534 536 538 540 542 544 546 548 550 552 554 556 558 560 562 564 566 568 570 572 574 576 578 580 582 584 586 588 590 592 594 596 598 600 602 604 606 608 610 612 614 616 618 620 622 624 626 628 630 632 634 636 638 640 642 644 646 648 650 652 654 656 658 660 662 664 666 668 670 672 674 676 678 680 682 684 686 688 690 692 694 696 698 700 702 704 706 708 710 712 714 716 718 720 722 724 726 728 730 732 734 736 738 740 742 744 746 748 750 752 754 756 758 760 762 764 766 768 770 772 774 776 778 780 782 784 786 788 790 792 794 796 798 800 802 804 806 808 810 812 814 816 818 820 822 824 826 828 830 832 834 836 838 840 842 844 846 848 850 852 854 856 858 860 862 864 866 868 870 872 874 876 878 880 882 884 886 888 890 892 894 896 898 900 902 904 906 908 910 912 914 916 918 920 922 924 926 928 930 932 934 936 938 940 942 944 946 948 950 952 954 956 958 960 962 964 966 968 970 972 974 976 978 980 982 984 986 988 990 992 994 996 998 1000

casing
types
insert
appropriate
code
below

CASING RECORD

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHERMAIN Nominal diameter Total depth
CASING top (main casing of main casing
TYPE (nearest inch) (nearest foot)

ST 4 102 6

OTHER CASING (if used)
diameter depth (feet)
inch from to

ST 2 1/2 104 111

screen type
or open hole

SCREEN RECORD

insert
appropriate
code
belowST BR HO
STEEL BRASS OPEN
BRONZE HOLE
PL OT
PLASTIC OTHER

C 2

DEPTH - nearest ft.

1 ST 111 116
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SLOT SIZE

DIAMETER OF SCREEN 5 (NEAREST INCH)

GRAVEL PACK
IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)T (E.R.O.S.) WO
74 75 76
70 71 72 73 74 75 76
TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES (C)

(CIRCLE) (YES OR NO)
IF DRILLER INSTALLS PUMP THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE IN BOX - SEE ABOVE

CAPACITY

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

CASING HEIGHT (to nearest foot)

and enter casing height

above } LAND SURFACE

below }

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING SEPTIC TANKS AND OTHER
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 10.17.13 WELL CONSTRUCTION
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE

DRILLERS IDENT. NO. 138

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)SITE SUPERVISOR (sign of driller or journeyman
responsible for sitework if different from permittee)

ORIGINAL

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

081 1805

B 1 7531

SEQUENCE NO.
(OEP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

Date Received

1 0 1 5 8 5

OWNER INFORMATION

HENDRICKSON FRANK E

118 WOODALL RD

PERRVILLE MD 21903

DRILLER INFORMATION

WALTER J FRANK

FRANK & WELL DRILLING

7014 FISHMILL WOOD RD. Balto

Walter Frank

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 1 0

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1 0 0 0

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSE—OLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

- BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY Drive-POINT
other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPM AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER

FORCE PERMIT NO. 08-81-1805

SPECIAL CONDITIONS

B 3

LOCATION OF WELL

CECIL

GREENBANK

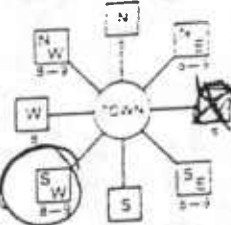
SECTION LOT

CHARLESTOWN

MILES FROM TOWN (enter 0 if in town)

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD

ENTER

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

OEP SIGNATURE

DATE ISSUED

1 0 1 5 8 5

NORTH GRID 629000

EAST GRID 108000

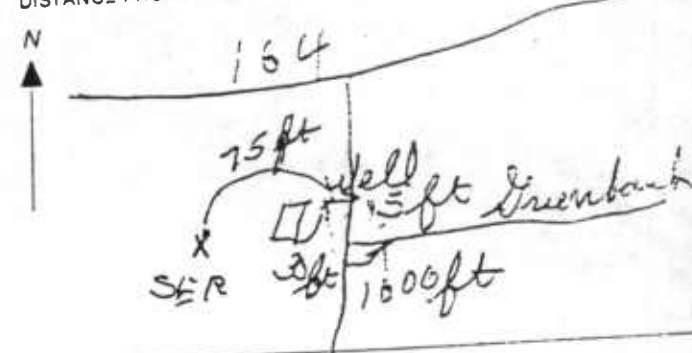
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



ORIGINAL

<p>1 6057</p> <p>2 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)</p> <p>3</p>	<p>SEQUENCE NO. (DP USE ONLY)</p> <p>STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type</p>	<p>STATE PERMIT NUMBER</p> <p>CE-88-2179</p> <p>70 fill in this form completely 79</p>
<p>Date Received (APA) 11/14/91</p> <p>OWNER INFORMATION</p> <p>8 11/14/91 13</p> <p>15 Last Name South 34</p> <p>Owner Janet First Name</p> <p>20 Woodall Rd 55</p> <p>36 Street or RFD</p> <p>57 Perryville 70 State 72 MD 78 Zip</p>	<p>LOCATION OF WELL</p> <p>8 COUNTY Cecil 21 D2576</p> <p>23 SUBDIVISION GREENBANK 42</p> <p>SECTION 44 46 LOT 48 50</p> <p>52 NEAREST TOWN CHARLESTOWN 71</p> <p>MILES FROM TOWN (enter 0 if in town) 1 73 78 77 78</p>	
<p>DRILLER INFORMATION</p> <p>Donald S. Newnam 138 77 License No. 80</p> <p>Driller's Name</p> <p>Shore Well Drillers</p> <p>Firm Name</p> <p>Cecil Ton, Md.</p> <p>Address</p> <p>Donald S. Newnam 11/14/91</p> <p>Signature Date</p>	<p>DIRECTION OF WELL FROM TOWN (CIRCLE BOX)</p> <p>8-9 N W 8-9 N E 8-9 W 8-9 E 8-9 S W 8-9 S</p> <p>ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)</p> <p>NORTH W 32 E 37</p> <p>WEST S 38 EAST</p> <p>SOUTH</p> <p>34 255 37</p> <p>DISTANCE FROM ROAD</p> <p>ENTER FT or MI 91 38 39</p>	
<p>WELL INFORMATION</p> <p>APPROX. PUMPING RATE (GAL. PER MIN.) 10 8 12</p> <p>AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000 14 20</p>	<p>USE FOR WATER (CIRCLE APPROPRIATE BOX)</p> <p>D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)</p> <p>F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)</p> <p>I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)</p> <p>P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)</p> <p>T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)</p>	
<p>APPROXIMATE DEPTH OF WELL 150 24 28 FEET</p> <p>APPROXIMATE DIAMETER OF WELL 4 NEAREST INCH</p>	<p>METHOD OF DRILLING (circle one)</p> <p>BORED (or Augered) JETTED Jetted & DRIVEN</p> <p>30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)</p> <p>37 CABLE REVERSE-ROTary DRIVE-POINT</p> <p>other</p>	
<p>REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)</p> <p>N THIS WELL WILL NOT REPLACE AN EXISTING WELL</p> <p>Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED</p> <p>39 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY</p> <p>D THIS WELL WILL DEEPEIN AN EXISTING WELL</p> <p>PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 52</p>	<p>NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL</p> <p>Cecil</p> <p>COUNTY NAME COUNTY NO.</p> <p>STATE SIGNATURE INSERT S 41</p> <p>DATE ISSUED 11/19/91 Charles E. Sings 5/19/92</p> <p>43 CO SIGNATURE EXP. DATE</p> <p>NORTH GRID 630000 50 55 EAST GRID 1079000 57 63</p>	
<p>METHOD OF DRILLING (circle one)</p> <p>BORED (or Augered) JETTED Jetted & DRIVEN</p> <p>30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)</p> <p>37 CABLE REVERSE-ROTary DRIVE-POINT</p> <p>other</p>	<p>SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X</p> <p>SOURCES OF DRILLING WATER</p> <p>1. Town - Cecil Ton</p> <p>2.</p> <p>3.</p> <p>WRITE THE BOX NUMBER FROM THE MAP HERE</p> <p>1070 630</p> <p>000 000</p>	
<p>REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)</p> <p>N THIS WELL WILL NOT REPLACE AN EXISTING WELL</p> <p>Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED</p> <p>39 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY</p> <p>D THIS WELL WILL DEEPEIN AN EXISTING WELL</p> <p>PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 52</p>	<p>DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION</p> <p>N</p> <p>20 Woodall Rd.</p> <p>D-25-76</p>	
<p>Not to be filled in by driller (OEP USE ONLY)</p> <p>APPROX. PERMIT NUMBER GAP 54 63</p> <p>FORCE CE-88-2179 70 71 72 73 74 75 76 77 78 79</p> <p>WRITE INITIALS IN BOX</p>	<p>SPECIAL CONDITIONS</p>	

6057 (THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3-6 ON ALL CARDS)	SEQUENCE NO. (DP USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER <div style="border: 1px solid black; padding: 2px; display: inline-block;"> CE-88-2179 </div> <small>fill in this form completely</small>
Date Received (APA) <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1/1/91 </div>		LOCATION OF WELL <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Cecil </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> D2576 </div>	
OWNER INFORMATION <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 20 Woodhill Rd </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Larry D. Lee </div>		8 COUNTY <div style="border: 1px solid black; padding: 2px; display: inline-block;"> GREENBANK </div> 23 SUBDIVISION <div style="border: 1px solid black; padding: 2px; display: inline-block;"> CHARLESTOWN </div> 52 NEAREST TOWN <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1 MI </div>	
DRILLER INFORMATION <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Donald S. Newman </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Shore Well Drillers </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Cecil Town, Md. </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Donald S. Newman </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 11/14/91 </div>		B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX) <div style="text-align: center;"> </div> NEAR WHAT ROAD <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Woodall Rd. </div> ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) <div style="text-align: center;"> </div> DISTANCE FROM ROAD <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 455 FT </div>	
WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.) <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 10 </div> AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1000 </div>		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Cecil COUNTY NAME _____ COUNTY NO. _____ STATE SIGNATURE _____ INSERT S _____ DATE ISSUED <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 11/19/91 </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Charles E. Smyers </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 5/19/92 </div> NORTH GRID <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 630000 </div> EAST GRID <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1079000 </div>	
USE FOR WATER (CIRCLE APPROPRIATE BOX) <div style="border: 1px solid black; padding: 2px; display: inline-block;"> D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY) </div>		SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X SOURCES OF DRILLING WATER 1. Town - Cecil Town 2. 3. WRITE THE BOX NUMBER FROM THE MAP HERE <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1070 630 </div>	
APPROXIMATE DEPTH OF WELL <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 150 </div> FEET APPROXIMATE DIAMETER OF WELL <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 4 </div> INCH		METHOD OF DRILLING (circle one) <div style="border: 1px solid black; padding: 2px; display: inline-block;"> BORED (or Augered) </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> JETTED </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Jetted & DRIVEN </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> AIR-ROTARY </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> AIR-PERCussion </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> ROTARY (Hydraulic Rotary) </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> CABLE </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> REVERSE-ROTARY </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Drive-POINT </div>	
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX) <div style="border: 1px solid black; padding: 2px; display: inline-block;"> N THIS WELL WILL NOT REPLACE AN EXISTING WELL </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY </div> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> D THIS WELL WILL DEEPMEN AN EXISTING WELL </div> PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 41 </div>		DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION <div style="text-align: center;"> </div>	
Not to be filled in by driller (OEP USE ONLY)			
APPROP. PERMIT NUMBER <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 54 </div>		FORCE <div style="border: 1px solid black; padding: 2px; display: inline-block;"> 67 </div>	
SPECIAL CONDITIONS		PERMIT No. <div style="border: 1px solid black; padding: 2px; display: inline-block;">CE-88-2179</div>	

ORIGINAL

129956

SEQUENCE NO.
(DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER D2576

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

DATE WELL COMPLETED
01/14/92

Depth of Well
2214826
(TO NEAREST FOOT)

CE-88-2179

ST/CO USE ONLY
DATE Received
FEB 4 1992

OWNER Southall, Janet
TREET OR RFD 20 Woodall Rd.
UBDIVISION Greenbank

first name

TOWN Perryville, Md.

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use
Additional sheets if needed)

FEET
FROM TO

Check
if water
bearing

v-yellow
v
low clay-sand
-white clay
low-white
i

0 9
9 34
34 126
126 148 ✓

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 7 NO. OF POUNDS 350

GALLONS OF WATER 125

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 130 ft.

CASING RECORD

casing
types
insert
appropriate
code
below

STEEL CONCRETE
PLASTIC OTHER

MAIN CASING TYPE

Nominal diameter
top (main) casing
(nearest inch)

Total depth
of main casing
(nearest foot)

OTHER CASING (if used)

diameter
inch

depth (feet)
from to

SCREEN RECORD

screen type
or open hole

insert
appropriate
code
below

STEEL BRASS OPEN
HOLE
PLASTIC OTHER

DEPTH (nearest ft.)

SLOT SIZE 20

DIAMETER
OF SCREEN 4 (NEAREST
INCH)

GRAVEL PACK 130 148

IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68

TELESCOPE
CASING

LOG
INDICATOR

OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min.
to nearest gal.) 30

METHOD USED TO
MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 44

WHEN PUMPING 100

TYPE OF PUMP USED (for test)

A air P piston T turbine
C centrifugal R rotary O other
J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE

TYPE OF PUMP INSTALLED
PLACE (A.C.J.P.R.S.T.O.)
IN BOX - SEE ABOVE:

CAPACITY:
GALLONS PER MINUTE
(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH
(nearest ft.)

CASING HEIGHT (circle appropriate box
and enter casing height)

LAND SURFACE 1 (nearest
foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND/OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

1 2995 SEQUENCE NO. (DENV USE ONLY) STATE OF MARYLAND WELL COMPLETION REPORT

THIS NUMBER IS TO BE PUNCHED IN THIS FORM COMPLETELY (FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE)

COUNTY NUMBER D2576

DATE WELL COMPLETED 01/14/92

Depth of Well 148 (TO NEAREST FOOT)

PERMIT NO. CE-88-2179

OWNER Southall, Janet first name TOWN Perryville, Md.

STREET OR RFD 20 Woodall Rd. SUBDIVISION SECTION LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)

FEET FROM TO

Check if water bearing

yellow 0 9

low clay-sand 9 34

white clay 34 126

white 126 148

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 7 NO. OF POUNDS 350

GALLONS OF WATER 125

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 130 ft.

CASING RECORD

casing types insert appropriate code below

STEEL CO PL OT

PLASTIC OTHER

MAIN CASING TYPE

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

P L 4 138

OTHER CASING (if used) diameter inch depth (feet) from to

SCREEN RECORD

screen type or open hole

insert appropriate code below

ST BR HO PL OT

STEEL BRASS OPEN HOLE PLASTIC OTHER

DEPTH (nearest ft.)

1 3 8 1 4 8

CIRCLE APPROPRIATE LETTER

IF WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

ELECTRIC LOG OBTAINED

TEST WELL CONVERTED TO PRODUCTION WELL

REBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLER'S IDENT. NO. 138

DRILLER'S SIGNATURE Donald S. Newman

DRILLER'S SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

TELESCOPE CASING LOG INDICATOR

GRAVEL PACK 130 148

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

DEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

70 72 74 75 76

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

C1	7152	SEQUENCE NO. (DENY USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.												
1 2 3 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)																
ST/CO USE ONLY DATE RECEIVED MAY 29 1991		DATE WELL COMPLETED 052391		PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-1818												
		Depth of Well 22 300 26 (TO NEAREST FOOT)		COUNTY NUMBER D1747												
OWNER <u>GRAY Edward</u> last name first name STREET OR RFD <u>591 Mountain Hill Rd</u> TOWN <u>Perryville, Md. 21903</u> SUBDIVISION _____ SECTION _____ LOT _____																
WELL LOG Not required for driven wells																
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING																
DESCRIPTION (Use additional sheets if needed)	FEET FROM TO	Check if water bearing														
BROWN SAND & GRAVEL	0 30															
RED CLAY	30 50															
BROWN SAND	50 65															
YELLOW CLAY	65 70															
SOFT GREEN WEATHERED ROCK	70 82															
HARD GRAY GRANITE	82 300															
CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P TEST WELL CONVERTED TO PRODUCTION WELL																
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE- SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.																
DRILLERS IDENT. NO. <u>112</u> <u>Charles H. Hamilton Jr</u> DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)																
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)																
GROUTING RECORD																
WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N TYPE OF GROUTING MATERIAL CEMENT CM BENTONITE CLAY BC NO. OF BAGS <u>21</u> NO. OF POUNDS <u>1974</u> GALLONS OF WATER <u>105</u> DEPTH OF GROUT SEAL (to nearest foot) from <u>0</u> ft. to <u>86</u> ft. (enter 0 if from surface)																
CASING RECORD																
casing types insert appropriate code below ST CO STEEL CONCRETE PL OT PLASTIC OTHER MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot) PL <u>6</u> <u>86</u> 60 61 63 64 66 70																
OTHER CASING (if used) diameter inch depth (feet) from to <table border="1" style="width:100%; height: 40px;"> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>																
SCREEN RECORD																
screen type or open hole insert appropriate code below ST BR HO STEEL BRASS OPEN HOLE PL OT PLASTIC OTHER C2 DEPTH (nearest ft.) 1 <u>40</u> <u>86</u> <u>300</u> 8 9 11 15 17 21 23 24 26 30 32 38 38 39 41 45 47 51 EACH SCREEN																
SLOT SIZE 1 _____ 2 _____ 3 _____ DIAMETER OF SCREEN _____ (NEAREST INCH) from _____ to _____																
GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 <input type="checkbox"/>																
OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q 70 <input type="checkbox"/> 72 <input type="checkbox"/> 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA																
PUMPING TEST																
HOURS PUMPED (nearest hour) <u>6</u> PUMPING RATE (gal. per min. to nearest gal.) <u>2</u> METHOD USED TO MEASURE PUMPING RATE <u>BUCKET & WATCH</u> WATER LEVEL (distance from land surface) BEFORE PUMPING <u>50</u> WHEN PUMPING <u>210</u> TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible																
PUMP INSTALLED																
DRILLER WILL INSTALL PUMP YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> (CIRCLE) (YES or NO) IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: <u>29</u> CAPACITY: GALLONS PER MINUTE (to nearest gallon) <u>31</u> <u>35</u> PUMP HORSE POWER <u>37</u> <u>41</u> PUMP COLUMN LENGTH (nearest ft.) <u>43</u> <u>47</u> CASING HEIGHT (circle appropriate box and enter casing height) (+) above } LAND SURFACE (-) below } <u>1</u> (nearest foot)																
LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL) DRIVEWAY 15' WELL 20' HOUSE Mountain Hill Rd.																

ORIGINAL

C1 7152 SEQUENCE NO. (DENY USE ONLY)
1 2 3 4 5 6
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER D1747

ST/CO USE ONLY
DATE Received

MAY 29 1991

DATE WELL COMPLETED

052391

Depth of Well

22 300 26
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
CE-88-1818

OWNER GRAY Edward last name first name
STREET OR RFD 591 Mountain Hill Rd TOWN Perryville Md. 21903
SUBDIVISION SECTION LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed) FEET FROM TO Check if water bearing

BROWN
SAND &
GRAVEL

0 30

RED CLAY

30 50

BROWN SAND

50 65

YELLOW CLAY

65 70

SOFT GREEN
WEATHERED
Rock

70 82

HARD GRAY
GRANITE

82 300 ✓

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 21 NO. OF POUNDS 1974

GALLONS OF WATER 105

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 86 ft.

TOP BOTTOM

ST CO
STEEL CONCRETE

PL OT
PLASTIC OTHER

MAIN CASING TYPE

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

PL 6 86

OTHER CASING (if used)

diameter inch depth (feet) from to

screen type or open hole

insert appropriate code below

ST BR HO
STEEL BRASS OPEN HOLE

PL OT
PLASTIC OTHER

DEPTH (nearest ft.)

40 86 300

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51

SLOT SIZE 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

from to

GRAVEL PACK

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

70 72 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.) 2

METHOD USED TO MEASURE PUMPING RATE BUCKET & WATCH

WATER LEVEL (distance from land surface)

BEFORE PUMPING 50

WHEN PUMPING 210

TYPE OF PUMP USED (for test)

A air P piston T turbine

C centrifugal R rotary O other (describe below)

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

(CIRCLE) (YES or NO)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)

IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above } LAND SURFACE

- below } 1 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

DRIVEWAY

15' x 20'

WELL 20'

House

Mountain Hill Rd.

DRILLERS IDENT. NO. 112

DRILLERS SIGNATURE Charles H. Hamilton Jr.

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

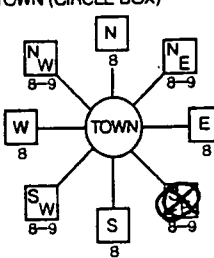

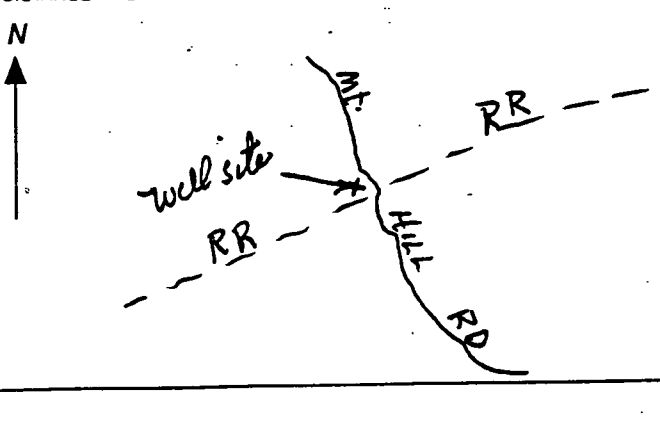
ORIGINAL

642-6861

EMERGENCY/TEMP NO. IF ANY

Pd. #40, #72387-MKL 23993

B 1	8888	SEQUENCE NO. (DP USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER CE-88-1819 <small>70 fill in this form completely 79</small>
<small>(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)</small>				
OWNER INFORMATION				
Date Received (APA) 09/19/91				
8 GRAY EDWARD 13 Owner 34 First Name				
15 591 MOUNTAIN HILL RD 55 Street or RFD				
57 PERREYVILLE 70 MD 21903 78 Town 72 State 76 Zip				
DRILLER INFORMATION				
Driller's Name CHARLES H. HAMILTON, JR 77 License No. 1112				
Firm Name JONES & HAMILTON				
Address 115 N. PARADISE RD. HLG 21078				
Signature Charles H. Hamilton Jr. Date 4-16-91				
WELL INFORMATION				
APPROX. PUMPING RATE (GAL. PER MIN.) 5 12				
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500 20				
USE FOR WATER (CIRCLE APPROPRIATE BOX)				
<input checked="" type="checkbox"/> D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)				
<input type="checkbox"/> F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)				
<input type="checkbox"/> I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)				
<input type="checkbox"/> P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)				
<input type="checkbox"/> T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)				
APPROXIMATE DEPTH OF WELL 150 24 FEET 28				
APPROXIMATE DIAMETER OF WELL 6 44 INCH 48				
METHOD OF DRILLING (circle one)				
<input checked="" type="checkbox"/> BORED (or Augered) <input type="checkbox"/> JETTED <input type="checkbox"/> Jettied & DRIVEN				
30 AIR-Rotary 37 AIR-PERCussion ROTARY (Hydraulic Rotary)				
CABLE REVerse-ROTary Drive-POINT				
other _____				
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)				
<input checked="" type="checkbox"/> N THIS WELL WILL NOT REPLACE AN EXISTING WELL				
<input type="checkbox"/> Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED				
39 <input type="checkbox"/> S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY				
<input type="checkbox"/> D THIS WELL WILL DEEPEMED AN EXISTING WELL				
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 _____ 52				
Not to be filled in by driller (OEP USE ONLY)				
APPROX. PERMIT NUMBER _____ 54 GAP 63				
FORCE CE-88-1819 67 WRITE INITIALS IN BOX 68 PERMIT No. CE-88-1819 70 71 72 73 74 75 76 77 78 79				
SPECIAL CONDITIONS				

B 3	LOCATION OF WELL
1 Dec IL 21 D1747	
8 COUNTY 42	
23 SUBDIVISION 42	
SECTION 44 48 LOT 48 50	
52 NEAREST TOWN Perreyville 71	
MILES FROM TOWN (enter 0 if in town) 2 73 M 78 77 78	
B 4	NEAR WHAT ROAD Mountain Hill Rd. 30
DIRECTION OF WELL FROM TOWN (CIRCLE BOX)	
	
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)	
	
34 30 37 DISTANCE FROM ROAD	
ENTER FT or MI FT 38 39	
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL	
Cecil	
COUNTY NAME _____ COUNTY NO. _____	
STATE SIGNATURE _____ INSERT S 41	
DATE ISSUED 05/14/91 43 Charles E. Smyth 46 CO SIGNATURE 56 EXP. DATE 63	
NORTH GRID 634000 50 55 EAST GRID 1075000 57 63	
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X	
SOURCES OF DRILLING WATER	
1. _____	
2. _____	
3. _____	
WRITE THE BOX NUMBER FROM THE MAP HERE	
E 1070 000 000	
N 630 000 000	
DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION	
	

ORIGINAL

<div>SEQUENCE NO. (DP USE ONLY)</div> <div>8888</div>		<div>STATE OF MARYLAND</div> <div>APPLICATION FOR PERMIT TO DRILL WELL</div> <div>please print or type</div>		<div>STATE PERMIT NUMBER</div> <div>CE-88-1819</div> <div>fill in this form completely</div>	
<div>1 2 3 4 5 6 7 8</div> <div>(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)</div>					
<div>Date Received (APA)</div> <div>07/19/91</div> <div>OWNER INFORMATION</div> <div>GRAY EDWARD</div> <div>591 MOUNTAIN HILL RD</div> <div>PERRYVILLE MD 21903</div>		<div>LOCATION OF WELL</div> <div>8 COUNTY</div> <div>23 SUBDIVISION</div> <div>SECTION</div> <div>LOT</div> <div>52 NEAREST TOWN</div> <div>MILES FROM TOWN (enter 0 if in town)</div>			
<div>DRILLER INFORMATION</div> <div>CHARLES H HAMILTON, JR</div> <div>Jones & Hamilton</div> <div>115 N. PARADISE RD. Hdg 21078</div> <div>Charles H Hamilton Jr.</div>		<div>DIRECTION OF WELL FROM TOWN (CIRCLE BOX)</div> <div>ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)</div> <div>NEAR WHAT ROAD</div> <div>DISTANCE FROM ROAD</div>			
<div>WELL INFORMATION</div> <div>APPROX. PUMPING RATE (GAL PER MIN.)</div> <div>AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY)</div>		<div>USE FOR WATER (CIRCLE APPROPRIATE BOX)</div> <div>APPROXIMATE DEPTH OF WELL</div> <div>APPROXIMATE DIAMETER OF WELL</div> <div>METHOD OF DRILLING (circle one)</div> <div>REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)</div>			
<div>APPROX. PUMPING RATE (GAL PER MIN.)</div> <div>AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY)</div>		<div>NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL</div> <div>Cecil</div> <div>COUNTY NAME</div> <div>STATE SIGNATURE</div> <div>DATE ISSUED</div> <div>CO SIGNATURE</div> <div>NORTH GRID</div> <div>EAST GRID</div>			
<div>APPROXIMATE DEPTH OF WELL</div> <div>APPROXIMATE DIAMETER OF WELL</div>		<div>SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X</div> <div>SOURCES OF DRILLING WATER</div> <div>WRITE THE BOX NUMBER FROM THE MAP HERE</div> <div>DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION</div>			
<div>METHOD OF DRILLING (circle one)</div> <div>BORED (or Augered)</div> <div>JETTED</div> <div>Jettied & DRIVEN</div> <div>AIR-ROTary</div> <div>AIR-PERCussion</div> <div>ROTARY (Hydraulic Rotary)</div> <div>CABLE</div> <div>REVERSE-ROTary</div> <div>Drive-POINT</div>		<div>REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)</div> <div>THIS WELL WILL NOT REPLACE AN EXISTING WELL</div> <div>THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED</div> <div>THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY</div> <div>THIS WELL WILL DEEPEN AN EXISTING WELL</div> <div>PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)</div>			
<div>Not to be filled in by driller (OEP USE ONLY)</div> <div>APPROX. PERMIT NUMBER</div> <div>FORCE</div> <div>WRITE INITIALS IN BOX</div> <div>PERMIT No.</div>		<div>SPECIAL CONDITIONS</div>			

ORIGINAL

C 1	2948	SEQUENCE NO. (DENV USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE		THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.	
1 2 3 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)				COUNTY NUMBER	D0495	
ST/CO USE ONLY DATE Received		DATE WELL COMPLETED		PERMIT NO. FROM "PERMIT TO DRILL WELL"		
NOV 8 1990		103190		CE-88-1434		
8 13		15 20		28 29 30 31 32 33 34 35 36		
		Depth of Well 22 128 26 (TO NEAREST FOOT)				

OWNER McElyea, William first name William TOWN Perryville, Md.
STREET OR RFD 160 Mt. Hill Rd. last name McElyea LOT 1
SUBDIVISION _____ SECTION _____

WELL LOG		
Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET	
	FROM	TO
top soil	0	2
yellow sand-clay-		
gravel	2	20
red-white clay	20	82
fine sand-clay	82	113
white sand	113	128

GROUTING RECORD	
WELL HAS BEEN GROUTED (Circle Appropriate Box)	
yes Y	no N
TYPE OF GROUTING MATERIAL	
CEMENT CM	BENTONITE CLAY BC
45 48	45 48
NO. OF BAGS _____ NO. OF POUNDS _____	
GALLONS OF WATER NO ANNULAR SPACE	
DEPTH OF GROUT SEAL (to nearest foot)	
from _____ ft.	to _____ ft.
48 TOP 52	54 BOTTOM 58
(enter 0 if from surface)	

CASING RECORD	
casing types insert appropriate code below	
STEEL ST	CONCRETE CO
PLASTIC PL	OTHER OT
MAIN CASING TYPE	
Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
S T	4 115
60 81	66 70

OTHER CASING (if used)	
diameter inch	depth (feet) from to
S T	2 112 123

SCREEN RECORD		
screen type or open hole insert appropriate code below		
STEEL ST	BRASS BR	OPEN HO
PLASTIC PL	BRONZE BR	HOLE HO
	PLASTIC PL	OTHER OT

C 2	
DEPTH (nearest ft.)	
S T	1 2 3 1 2 8
8 9	11 15 17 21
23 24	26 30 32 36
38 39	41 45 47 51
SLOT SIZE 1 5 2 3	
DIAMETER OF SCREEN 2 (NEAREST INCH)	
from to	

GRAVEL PACK	
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68	

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)		
T	(E.R.O.S.)	W Q
70 T	72	74 75 76
TELESCOPE CASING	LOG INDICATOR	OTHER DATA

PUMPING TEST		
HOURS PUMPED (nearest hour)		
6		
PUMPING RATE (gal. per min. to nearest gal.)		
800		
METHOD USED TO MEASURE PUMPING RATE bucket		
WATER LEVEL (distance from land surface)		
BEFORE PUMPING 3 1		
WHEN PUMPING 1 0 0		
TYPE OF PUMP USED (for test)		
A air	P piston	T turbine
C centrifugal	R rotary	O other (describe below)
J jet	S submersible	

PUMP INSTALLED	
DRILLER WILL INSTALL PUMP YES NO	
(CIRCLE) (YES or NO)	
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE	
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:	
CAPACITY: GALLONS PER MINUTE (to nearest gallon)	
PUMP HORSE POWER	
PUMP COLUMN LENGTH (nearest ft.)	
CASING HEIGHT (circle appropriate box and enter casing height)	
LAND SURFACE (nearest foot)	

LOCATION OF WELL ON LOT	
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)	

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE- SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.	
DRILLERS IDENT. NO. 138	
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)	
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)	

ORIGINAL

1430

SEQUENCE NO.
(DENY USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.COUNTY
NUMBER C5655THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)DATE RECEIVED
CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

01 X 5 1990

102990

22 156 26
(TO NEAREST FOOT)

C E - 8 8 - 1 2 8 4

OWNER Boyce, Charles first name Charles TOWN Perryville, Md.
STREET OR RFD Carpenters Pt. Rd. SECTION 13 LOT 13
SUBDIVISION Greenbank Farms

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
Additional sheets if needed)

FEET

Check
if water
bearing

	FROM	TO
low sand-clay	0	20
clay-gravel	20	82
te clay	82	92
low-white sand	92	156

GROUTING RECORD.

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CMBENTONITE CLAY BC

NO. OF BAGS NO. OF POUNDS

GALLONS NO ANNULAR SPACE

DEPTH OF GROUT SEAL (to nearest foot)

from 48 ft. to 54 ft.
(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
below

<u>ST</u>	<u>CO</u>
STEEL	CONCRETE
<u>PL</u>	<u>OT</u>
PLASTIC	OTHER

MAIN
CASING
TYPENominal diameter
top (main) casing
(nearest inch)Total depth
of main casing
(nearest foot)S T4 61 4 6 7 0

OTHER CASING (if used)

diameter
inch from toS T2 123 151screen type
or open hole
insert
appropriate
code
below

SCREEN RECORD

<u>ST</u>	<u>BR</u>	<u>HO</u>
STEEL	BRASS	OPEN HOLE
	BRONZE	<u>OT</u>
	PLASTIC	OTHER

C 2

	DEPTH (nearest ft.)
1	<u>S</u> <u>T</u> <u>1</u> <u>5</u> <u>1</u> <u>1</u> <u>5</u> <u>6</u> <u>2</u> <u>1</u>
2	<u>2</u> <u>3</u> <u>2</u> <u>6</u> <u>3</u> <u>0</u> <u>3</u> <u>2</u> <u>3</u> <u>6</u>
3	<u>3</u> <u>8</u> <u>4</u> <u>1</u> <u>4</u> <u>5</u> <u>4</u> <u>7</u> <u>5</u> <u>1</u>

EACH SCREEN

SLOT SIZE 1 10 2 3DIAMETER
OF SCREEN 2 (NEAREST
INCH)
from toGRAVEL PACK
IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

W Q

TELESCOPE
CASINGLOG
INDICATOR

OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min.
to nearest gal.)METHOD USED TO
MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (for test)

<u>A</u> air	<u>P</u> piston	<u>T</u> turbine
<u>C</u> centrifugal	<u>R</u> rotary	<u>O</u> other (describ below)
<u>J</u> jet	<u>S</u> submersible	

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES (NO)

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USETYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O)
IN BOX - SEE ABOVE:CAPACITY:
GALLONS PER MINUTE
(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH
(nearest ft.)CASING HEIGHT (circle appropriate box
and enter casing height)

<u>+</u> above	LAND SURFACE
<u>-</u> below	<u>1</u> (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND/OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

House

X 40 = 4

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE-
SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF
MY KNOWLEDGE.DRILLERS IDENT. NO. 138DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

1430

SEQUENCE NO.
(DENY USE ONLY)

THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY
DATE Received

NOV 3 1990

DATE WELL COMPLETED

102990

STATE OF MARYLAND
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

C5655

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

CE-88-1284

OWNER

Boyce, Charles

first name

TOWN

Perryville, Md.

STREET OR RFD

Carpenters Pt. Rd.

SECTION

LOT

13

SUBDIVISION

Greenbank Farms

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
low sand-clay	0	20	
sd-clay-gravel	20	82	
te clay	82	92	
low-white sand	92	156	✓

GROUTING RECORD.

yes ☒ no ☒

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT ☒ BENTONITE CLAY ☒

NO. OF BAGS NO. OF POUNDS

GALLONS

NO. OF ANNUAL SPACE

DEPTH OF GROUT SEAL (to nearest foot)

from ft. to ft.

CASING RECORD

casing types insert appropriate code below

STEEL ☒ CONCRETE ☒

PLASTIC ☒ OTHER ☒

MAIN CASING TYPE

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

OTHER CASING (if used)

diameter inch

depth (feet) from to

SCREEN RECORD

screen type or open hole insert appropriate code below

STEEL ☒ BRASS ☒ OPEN HOLE ☒

PLASTIC ☒ OTHER ☒

DEPTH (nearest ft.)

SLOT SIZE 1 10 2 3

DIAMETER OF SCREEN (NEAREST INCH)

from to

GRAVEL PACK

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

W Q

TELESCOPE CASING

LOG INDICATOR

OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour)

PUMPING RATE (gal. per min. to nearest gal.)

METHOD USED TO MEASURE PUMPING RATE

bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (for test)

A air P piston T turbine

C centrifugal R rotary O other (describe below)

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

(CIRCLE) (YES or NO)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)

IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

above below

LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

House

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 138

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee).

Date 6-8-92

1228

Permit Number of Abandoned well (if any)

N	O	-	N	E	-				
---	---	---	---	---	---	--	--	--	--

Driller's Name Seward Timothy
Last First

RECEIVED

JUN 12 1990

Owner's Name Lusk Marvin
Last FirstCECIL COUNTY
HEALTH DEPT

Well Location:

County Cecil
Subdivision Green Bank
Section Lot
Nearest Town CHARLES TOWN
Maryland Grid Location

Box Number

1079
630

	0/5	
	0/0	X

Show well location by (X) within box

Type of Well

- ☒ Drilled
☐ Jetted
☐ Bored or Augered
☐ Other, specify

Depth of Well 160 Feet

Type of Casing

- ☒ Steel
☐ Plastic
☐ Concrete
☐ Other, Specify

Size of Casing 4 InchesWas any case removed () Yes (X) No
if yes amount removed FeetWas casing ripped or perforated
() Yes (X) No

Log of Sealing Material

Material	Feet	
	From	To
Bentonite	3	160

Driller Timothy Seward
(Signature)License # 427

C1

7774

SEQUENCE NO.
(DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

Replacement

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

C E - 8 8 - 1 2 2 8

ST/CO USE ONLY
DATE Received

JUN 12 1990

DATE WELL COMPLETED

060390

Depth of Well

22 195 26

(TO NEAREST FOOT)

OWNER Lusk MARVIN last name Clark first name CL TOWN Charlestown

STREET OR RFD SS

SUBDIVISION GREEN BANK SECTION LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)

FEET

FROM

TO

Check if water bearing

CLAY Fill 0 4

Sand mix 4 30

Red CLAY 30 80

Red white CLAY 80 130

GRAY CLAY 130 160

White CLAY mix 160 185

med white Sand 185 195 X

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 6 NO. OF POUNDS 300

GALLONS OF WATER 150

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 45 ft.

(enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

STEEL ST CONCRETE CO

PLASTIC PL OTHER OT

MAIN CASING TYPE

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

PL 4 185

OTHER CASING (if used)

diameter inch

depth (feet) from to

SCREEN RECORD

screen type or open hole insert appropriate code below

STEEL ST BRASS BR OPEN HOLE HO

BRONZE PL OTHER OT

PLASTIC

C2

DEPTH (nearest ft.)

EACH SCREEN

1 PL 185 195

2

3

SLOT SIZE 1 20 2 3

DIAMETER OF SCREEN (NEAREST INCH)

from 185 to 195

GRAVEL PACK 185 195

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

W Q

74 75 76

70 72

TELESCOPE CASING

LOG INDICATOR

OTHER DATA

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 25

METHOD USED TO MEASURE PUMPING RATE Bucked

WATER LEVEL (distance from land surface)

BEFORE PUMPING 95

WHEN PUMPING 130

TYPE OF PUMP USED (for test)

A air P piston T turbine

C centrifugal R rotary O other (describe below)

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

(CIRCLE) (YES or NO)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above LAND SURFACE

- below 1 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

House

40' well

25'

CLARK Rd

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

Date Received (APA)
MAY 29 1990

287-3632

OWNER INFORMATION

8 13
Last Name First Name
CLARK MARVIN

36 55
Street or RFD
Perryville Rd 21903

57 78
Town State Zip

DRILLER INFORMATION

MWD

Timothy J Seward

327

77 License No. 80

Driller's Name
Firm Name
158 Black bird ST. Rd Townsend Re 1978

Address
Timothy J Seward 5-16-90

Signature Date

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)

☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)

☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 120 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH NEAREST INCH

METHOD OF DRILLING (circle one)

☒ BORED (or Augered) ☐ JETTED ☐ Jetted & DRIVEN

☐ AIR-ROtary ☐ AIR-PERcussion ☒ ROTARY Hydraulic Rotary

☐ CABLE ☐ REVerse-ROtary ☐ Drive-POINT

other

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL

☒ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

☐ THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 52

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER 54 GAP 63

FORCE 87 68 WRITE INITIALS IN BOX PERMIT No. CE-88-1228 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

B 3

LOCATION OF WELL

8 COUNTY 21
Greenbank

23 SUBDIVISION 42

SECTION 44 48 LOT 48 50

52 NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 3 MI 73 78 77 78

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

W N NE E S SE SW

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH N WEST W SOUTH S EAST E

34 37
DISTANCE FROM ROAD ENTER FT or MI 47 38 39

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S 41

DATE ISSUED 0511790 5 Joseph M. Moore 11/17/90

43 48 CO-SIGNATURE EXP. DATE

NORTH GRID 630000 50 55 EAST GRID 1079000 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. Well at Office

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 630

000 000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

Carpenters Pt Rd

100

Woodall Rd

B 1		SEQUENCE NO. (DP USE ONLY) 4930	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type		STATE PERMIT NUMBER CE-88-1149 <small>70 fill in this form completely 79</small>
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)					
Date Received (APA) 032390 OWNER INFORMATION Last Name: JOHNS Owner: MERLIN First Name: JOHNS Street or RFD: 938 Leeds Rd Town: ELKTON State: MD Zip: 21921			B 3 LOCATION OF WELL County: Cecil C4312 Subdivision: Green Bank Farms Section: 44 Lot: 48 13 Green Bank Nearest Town: CHERRY CREST TOWN Miles from Town (enter 0 if in town): 2 MI		
Driller Information Name: Timothy J Seward License No. 427 Firm Name: RT Seward And Son Address: 158 Blackbird St. Rt. Tansey Del. DE Signature: Timothy J Seward Date: 3-16-90			B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX) ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) Distance from Road: 15 FT or MI ENTER FT or MI: 15		
B 2 WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.): 10 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000			NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Cecil COUNTY NAME: Cecil COUNTY NO.: 41 STATE SIGNATURE: Charles E. Sings DATE ISSUED: 9/30 NORTH GRID: 629000 EAST GRID: 1078000		
USE FOR WATER (CIRCLE APPROPRIATE BOX) <input checked="" type="checkbox"/> HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY) <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT) <input type="checkbox"/> PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL) <input type="checkbox"/> TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)			SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X SOURCES OF DRILLING WATER 1. 2. 3. WRITE THE BOX NUMBER FROM THE MAP HERE <div style="border: 1px solid black; padding: 5px; display: inline-block;">E 1070 N 620</div>		
APPROXIMATE DEPTH OF WELL: 140 FEET APPROXIMATE DIAMETER OF WELL: 4" INCH METHOD OF DRILLING (circle one) BORED (or Augered) <input type="checkbox"/> JETTED <input type="checkbox"/> Jetted & DRIVEN <input type="checkbox"/> AIR-ROTARY <input type="checkbox"/> AIR-PERCussion <input type="checkbox"/> ROTARY (Hydraulic Rotary) <input checked="" type="checkbox"/> CABLE <input type="checkbox"/> REVERSE-ROTARY <input type="checkbox"/> Drive-POINT <input type="checkbox"/> other: _____			DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION 		
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX) <input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY <input type="checkbox"/> THIS WELL WILL DEEPEMED AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE): _____			Not to be filled in by driller (OEP USE ONLY) APPROX. PERMIT NUMBER: GAP FORCE: CE-88-1149 PERMIT NO.: CE-88-1149		
SPECIAL CONDITIONS					

7761
SEQUENCE NO. (DENV USE ONLY)
CO USE ONLY
DATE Received
MAY 15 1990

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

PERMIT NO. FROM "PERMIT TO DRILL WELL"
CE-88-1149
COUNTY NUMBER C4312

OWNER Mrs. J. Jones last name first name
STREET OR RFD 15 Green Bank Rd.
SUBDIVISION GREEN BANK FARMS SECTION LOT

WELL LOG
Not required for driven wells
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
Top Soil	0	6'	
Full drif	6	5'	
Red Clay	5	30	
Red & white Clay	30	80	
Gray Clay	80	110	
White Clay	110	130	
Red white Sand	130	140	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box)
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 3 NO. OF POUNDS 150
GALLONS OF WATER 75
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 30 ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER
MAIN CASING TYPE
Nominal diameter top (main) casing (nearest inch)
Total depth of main casing (nearest foot)
F1 4 130
60 61 63 64 66 70

OTHER CASING (if used)
diameter inch depth (feet) from to
EACH CASING

SCREEN RECORD
screen type or open hole insert appropriate code below
ST BR HO
STEEL BRASS OPEN HOLE
PL PL BRONZE HOLE
PLASTIC OTHER

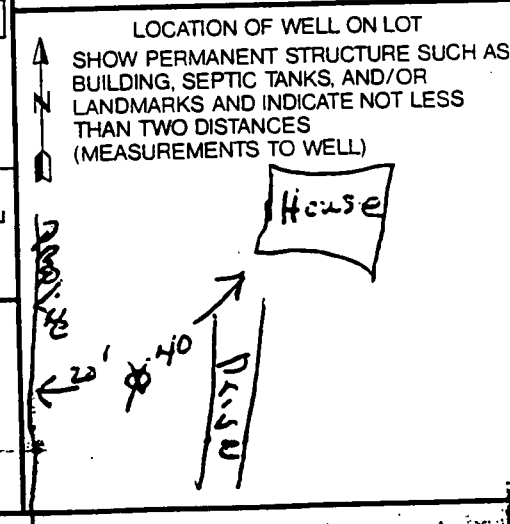
DEPTH (nearest ft.)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
1 PL 130 140
2
3
4
5
6
7
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51
SLOT SIZE 20
DIAMETER OF SCREEN 4 (NEAREST INCH)
from 130 to 140

GRAVEL PACK
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
70 72 74 75 76
TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMPING TEST
HOURS PUMPED (nearest hour) 3
PUMPING RATE (gal. per min. to nearest gal.) 30
METHOD USED TO MEASURE PUMPING RATE Bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 60
WHEN PUMPING 120
TYPE OF PUMP USED (for test)
A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO) YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above } LAND SURFACE (nearest foot)
- below }



CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.
DRILLERS IDENT. NO. 427
DRILLERS SIGNATURE [Signature]
(MUST MATCH SIGNATURE ON APPLICATION)
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C11878

SEQUENCE NO.
(DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

C4294

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

CE-88-0772

ST/CO USE ONLY
DATE Received

OCT 19 1989

DATE WELL COMPLETED

10/1/89

Depth of Well

110

(TO NEAREST FOOT)

OWNER Bieber Werner first name Werner TOWN Perryville

STREET OR RFD 109 Poplar PT Rd SECTION LOT

SUBDIVISION

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use
additional sheets if needed)

FEET

FROM

TO

Check
if water
bearing

Top Soil 0 6"

Clay Sand 6 10'

mix 10 30

Sand Gravel 30 60

Sand clay 60 80

mix 80 100

Gravel 100 110

Sand 110 110

White Clay 110 110

Sand 110 110

med Fine 110 110

Sand 110 110

GROUTING RECORD

WELL HAS BEEN GROUTED

(Circle Appropriate Box)

yes no

Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 5 NO. OF POUNDS 250

GALLONS OF WATER 125

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 60 ft.

(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
below

ST CO

STEEL CONCRETE

PL OT

PLASTIC OTHER

MAIN CASING TYPE

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

PL 4 100

OTHER CASING (if used)

diameter inch

depth (feet) from to

SCREEN RECORD

screen type or open hole

insert appropriate code below

ST BR HO

STEEL BRASS OPEN HOLE

PL PL BRONZE PLASTIC OTHER

DEPTH (nearest ft.)

PL 100 110

EACH SCREEN

1 2 3

8 9 11 15 17 21

23 24 26 30 32 36

38 39 41 45 47 51

SLOT SIZE 20 2 3

DIAMETER OF SCREEN 4 (NEAREST INCH)

from 100 to 110

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 4

PUMPING RATE (gal. per min. to nearest gal.) 10

METHOD USED TO MEASURE PUMPING RATE BUCKET

WATER LEVEL (distance from land surface)

BEFORE PUMPING 50

WHEN PUMPING 100

TYPE OF PUMP USED (for test)

A air P piston T turbine

C centrifugal R rotary O other (describe below)

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

(CIRCLE) (YES or NO)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)

IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

above below

LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 283

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

W Q

70 72 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

House

50'

25'

Poplar PT Rd

2,440-718189-62342-M2R

EMERGENCY/TEMP NO. IF ANY

STATE OF MARYLAND

APPLICATION FOR PERMIT TO DRILL WELL

SEQUENCE NO. (DP USE ONLY)

0346

DATE RECEIVED (APA)

090889

OWNER INFORMATION

BIEBER WERNER

319 SOUTA WASHIMATO

HANRE DEPRACEND

R. SEWARD

R.J. SEWARD & SON

2536 old County Rd. NEWARK DE

9/7/89

WELL INFORMATION

APPROX. PUMPING RATE (GAL PER MIN.)

10

AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY)

1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)

P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)

T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL

120

FEET

APPROXIMATE DIAMETER OF WELL

4

NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered)

JETTED

Jettied & DRIVEN

AIR-ROTary

AIR-PERCussion

ROTARY (Hydraulic Rotary)

CABLE

REverse-ROTary

DRive-POINT

other

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

41

52

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER

54

63

FORCE

WRITE INITIALS IN BOX

PERMIT No.

CE-88-0772

70

71

72

73

74

75

76

77

78

79

SPECIAL CONDITIONS

STATE PERMIT NUMBER

CE-88-0772

fill in this form completely

LOCATION OF WELL

C4294

CECIL

8 COUNTY

21

23 SUBDIVISION

42

SECTION

44

46

LOT

48

50

109 POPLAR PT RD

PERMYVILLE

52 NEAREST TOWN

71

MILES FROM TOWN (enter 0 if in town)

2.75

73

78

77

78

POPLAR PT RD

11

30

NEAR WHAT ROAD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH

W

E

WEST

EAST

SOUTH

34

37

DISTANCE FROM ROAD

30

ENTER FT OR MI

FT

38

39

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

COUNTY NO.

STATE SIGNATURE

DATE ISSUED

091189

Charles E. Smyer

3/11/90

43

46

CO SIGNATURE

EXP. DATE

NORTH GRID

629000

50

55

EAST GRID

1076000

57

63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. WELL AT OFFICE

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

1070

620

000

000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

POPLAR PT. RD

2500'

SITE

HILL RD

0840.8/17/89 #62276-MJR

EMERGENCY/TEMP NO. IF ANY

B 1 0852

SEQUENCE NO.
(DP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

STATE PERMIT NUMBER

CE-88-0730

fill in this form completely

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-8 ON ALL CARDS)

Date Received (APA)

08/17/89

OWNER INFORMATION

BAKER GEORGE W

1576 PRINCIPIO FURN

PERRYVILLE MD 21903

DRILLER INFORMATION

CHARLES H. HAMILTON JR 112

Jones & Hamilton

115 N. PARADISE RD., Hdc G. 21078

Charles H. Hamilton Jr. 8/15/89

Signature

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

- BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY Drive-POINT
other

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☒ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEMED AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER GAP

FORCE PERMIT NO. CE-88-0730

B 3

LOCATION OF WELL Replacement

CECIL

23 SUBDIVISION

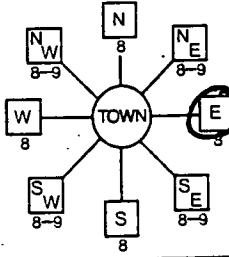
SECTION LOT

PERRYVILLE

MILES FROM TOWN (enter 0 if in town) 1.5

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



PRINCIPIO FURNACE

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

200 DISTANCE FROM ROAD ENTER FT or MI FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED 082389 Charles E. Smyth 2/23

CO SIGNATURE EXP. DATE NORTH GRID 635000 EAST GRID 1070000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1.
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE

1070
630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N
Principio Furnace Road

SPECIAL CONDITIONS

1836 SEQUENCE NO. (DENV USE ONLY) STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED. COUNTY NUMBER Replacement PERMIT NO. FROM "PERMIT TO DRILL WELL" C E - 8 B - 0 7 3 d

DATE WELL COMPLETED 083089 Depth of Well 224 (TO NEAREST FOOT) OWNER BAKER GEORGE W. last name first name STREET OR RFD 1576 Principio Furnace Rd. PERRYVILLE Md. 21903 SECTION LOT

WELL LOG Not required for driven wells STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING DESCRIPTION (Use additional sheets if needed) FEET FROM TO Check if water bearing

GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) TYPE OF GROUTING MATERIAL CEMENT CM BENTONITE CLAY BC NO. OF BAGS 23 NO. OF POUNDS 2162 GALLONS OF WATER 115 DEPTH OF GROUT SEAL (to nearest foot) from 0 to 90 ft. CASING RECORD casing types insert appropriate code below ST CO STEEL CONCRETE PL OT PLASTIC OTHER MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot) PL 6 90 OTHER CASING (if used) diameter inch depth (feet) from to SCREEN RECORD screen type or open hole insert appropriate code below ST BR HO STEEL BRASS OPEN HOLE PL OT PLASTIC OTHER

PUMPING TEST HOURS PUMPED (nearest hour) 4 PUMPING RATE (gal. per min. to nearest gal.) 4 METHOD USED TO MEASURE PUMPING RATE Bucket + Water WATER LEVEL (distance from land surface) BEFORE PUMPING 48 WHEN PUMPING 180 TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED DRILLER WILL INSTALL PUMP YES NO (CIRCLE) (YES or NO) IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: CAPACITY: GALLONS PER MINUTE (to nearest gallon) PUMP HORSE POWER PUMP COLUMN LENGTH (nearest ft.) CASING HEIGHT (circle appropriate box and enter casing height) LAND SURFACE (nearest foot)

CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P TEST WELL CONVERTED TO PRODUCTION WELL

DEPTH (nearest ft.) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL) Principio Furnace K. House 180' 20' x WELL REAR LINE

DRILLERS IDENT. NO. 112 Charles H. Hamilton J. DRILLERS SIGNATURE MUST MATCH SIGNATURE ON APPLICATION SITE SUPERVISOR (sign of driller or journeyman) TELESCOPE LOG OTHER DATA

1

2

3

4

5

6

8

9

0

5

9

0

SEQUENCE NO.
(DP USE ONLY)

STATE OF MARYLAND
PERMIT TO DRILL WELL

STATE PERMIT NUMBER
CE-88-0722

1

2

3

4

5

6

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

please print or type

1

2

3

4

5

6

Date Received (APA)
08/18/89

OWNER INFORMATION

15

16

17

18

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31

32

33

34

York Building Products

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

P O Box 1708

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

York PA 17405

DRILLER INFORMATION

Paul M. Fabiszak

77

78

79

80

399

Driller's Name

G. Edgar Harr Sons' Corp.

Firm Name

12047 Falls Road Cockeysville 21030

Address

8-16-89

Date

81

82

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84

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97

98

99

00

Paul M. Fabiszak

Signature

2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.)

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

5

AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY)

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

350

USE FOR WATER (CIRCLE APPROPRIATE BOX)

141

142

143

144

145

146

147

148

149

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151

152

153

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155

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159

160

☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)

☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)

☒ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

200

FEET

APPROXIMATE DIAMETER OF WELL

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

6

NEAREST INCH

METHOD OF DRILLING (circle one)

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

BORED (or Augered)

JETTED

Jettied & DRIVEN

AIR-ROTary

AIR-PERCussion

ROTARY (Hydraulic Rotary)

CABLE

REVERSE-ROTary

Drive-POINT

other

REPLACEMENT OR DEEPEINED WELLS
(CIRCLE APPROPRIATE BOX)

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

☐ THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED
(IF AVAILABLE)

241

242

243

244

245

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247

248

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255

256

257

258

259

260

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER

261

262

263

264

265

266

267

268

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272

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280

GAP

FORCE

281

282

283

284

285

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298

299

300

CE-88-0722

WRITE INITIALS IN BOX

SPECIAL CONDITIONS

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

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318

319

320

LOCATION OF WELL

321

322

323

324

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331

332

333

334

335

336

337

338

339

340

Cecil

Test Well

8 COUNTY

21

23 SUBDIVISION

42

SECTION

44

48

LOT

48

50

Charles Town

52 NEAREST TOWN

71

MILES FROM TOWN (enter 0 if in town)

341

342

343

344

345

346

347

348

349

350

351

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360

4

M I

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

361

362

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875

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37	2717	SEQUENCE NO. (DENY USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE		THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.	
THIS NUMBER IS TO BE PUNCHED IN COLUMNS 3-6 ON ALL CARDS			COUNTY NUMBER			
DATE RECEIVED NOV 7 1989			DATE WELL COMPLETED 092989		PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-0722	

OWNER YORK BUILDING PRODUCTS	last name PO Box 1708	first name	TOWN YORK PA 17405
STREET OR RFD WINCH ROAD		SECTION	LOT
SUBDIVISION			

WELL LOG Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET FROM TO	Check if water bearing
OVERBURDEN	0 5	
SAND	5 30	
BROWN CLAY	30 75	
BENTONITE	75 150 X	

GROUTING RECORD	
WELL HAS BEEN GROUTED. (Circle Appropriate Box)	
TYPE OF GROUTING MATERIAL	
CEMENT <input checked="" type="checkbox"/> CM	BENTONITE CLAY <input checked="" type="checkbox"/> BC
NO. OF BAGS 28	NO. OF POUNDS 2800
GALLONS OF WATER 168	
DEPTH OF GROUT SEAL (to nearest foot)	
from 0 ft	to 77 ft
(enter 0 if from surface)	

CASING RECORD		
casing types insert appropriate code below	ST CO STEEL CONCRETE	
	PL OT PLASTIC OTHER	
MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
ST	6	77

EACH CASING	OTHER CASING (if used)	
	diameter inch	depth (feet) from to
	ST	10 0 61

SCREEN RECORD	
screen type or open hole	ST BR HO STEEL BRASS OPEN HOLE
insert appropriate code below	PL OT PLASTIC OTHER

EACH SCREEN	DEPTH (nearest ft)	
	1 HO 77	150
	2	
3		

SLOT SIZE 2 3	
DIAMETER OF SCREEN (NEAREST INCH)	
from	to

GRAVEL PACK	
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68	

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)	
T (E.R.O.S.)	W Q
70	74 75 76
TELESCOPE CASING	LOG INDICATOR
OTHER DATA	

PUMPING TEST		
HOURS PUMPED (nearest hour) 3		
PUMPING RATE (gal. per min. to nearest gal.) 5		
METHOD USED TO MEASURE PUMPING RATE AIR		
WATER LEVEL (distance from land surface)		
BEFORE PUMPING	34	
WHEN PUMPING	130	
TYPE OF PUMP USED (for test)		
<input checked="" type="checkbox"/> A air	<input type="checkbox"/> P piston	<input type="checkbox"/> T turbine
<input type="checkbox"/> C centrifugal	<input type="checkbox"/> R rotary	<input type="checkbox"/> O other (describe below)
<input type="checkbox"/> J jet	<input type="checkbox"/> S submersible	

PUMP INSTALLED	
DRILLER WILL INSTALL PUMP YES NO	
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:	
CAPACITY: GALLONS PER MINUTE (to nearest gallon)	31 35
PUMP HORSE POWER	37 41
PUMP COLUMN LENGTH (nearest ft.)	43 47
CASING HEIGHT (circle appropriate box and enter casing height)	
<input checked="" type="checkbox"/> + above	LAND SURFACE
<input type="checkbox"/> - below	1 (nearest foot)

LOCATION OF WELL ON LOT	
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)	
I-95	
500'	
800'	
WINCH ROAD	

CIRCLE APPROPRIATE LETTER A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED	
ELECTRIC LOG OBTAINED	
TEST WELL CONVERTED TO PRODUCTION WELL	
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN CONFORMANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" CONFORMANCE WITH ALL CONDITIONS STATED IN THE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE- SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.	
DRILLER'S IDENT. NO. 399	
DRILLER'S SIGNATURE	
MUST MATCH SIGNATURE ON APPLICATION	
SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)	

12. #40.7/17/89 #62174-436 EMERGENCY/TEMP NO. IF ANY

B 7 6870 SEQUENCE NO.
(OEP USE ONLY)STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

OEP PERMIT NUMBER

CE-88-0702

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

fill in this form completely

Date Received

07/17/89

OWNER INFORMATION

CHESTNUT PT M.H. PARK

85 CHESTNUT PT Rd

PEARLYVILLE MD 21903

DRILLER INFORMATION

R. SEWARD

283

R. J. SEWARD & SON

2526 OLD COUNTY RD NEWARK DE

Robert Seward 7/13/89

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☐ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☒ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

- ☐ BORED (or Augered) ☐ JETTED ☐ Jetted & DRIVEN
- ☐ AIR-ROTARY ☐ AIR-PERCussion ☒ ROTARY (Hydraulic Rotary)
- ☐ CABLE ☐ REVERSE-ROTARY ☐ DRIVE-POINT
- other _____

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☒ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED
(IF AVAILABLE) CE-81-1480

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER CE66GAP020

FORCE CS PERMIT No. CE-88-0702

SPECIAL CONDITIONS

LOCATION OF WELL

CECIL Chestnut Pt.

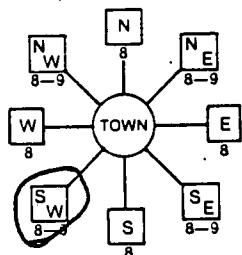
8 COUNTY

23 SUBDIVISION

SECTION 44 LOT 48 85 CHESTNUT PT.

CHARLESTOWN

MILES FROM TOWN (enter 0 if in town) 1.75 MI

DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)

CARPENTERS PT RD

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)34 20 37
DISTANCE FROM ROAD

ENTER FT or MI FT

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME _____ COUNTY NO. _____

OEP SIGNATURE Zohreh Izadi STATE HEALTH INSERT S 5

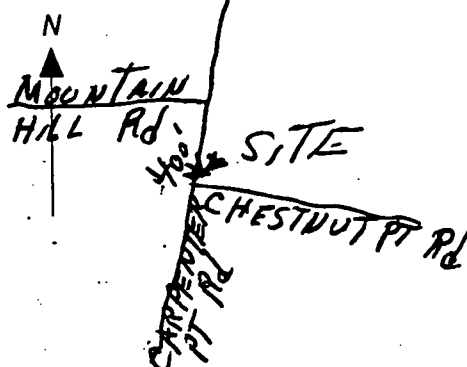
DATE ISSUED 08/10/89 Charles E. Smyer 2/10/

43 CO SIGNATURE _____ EXP. DATE _____

NORTH GRID 628000 EAST GRID 1078000

SHOW MAJOR FEATURES OF
BOX & LOCATE WELL
WITH AN X

- SOURCES OF DRILLING WATER
1. WELL AT OFFICE
 - 2.
 - 3.

WRITE THE BOX NUMBER
FROM THE MAP HEREE 1070
N 620000
000DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

1807
SEQUENCE NO. (DENV USE ONLY)
THIS NUMBER IS TO BE PUNCHED
COLS. 3-6 ON ALL CARDS

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.
COUNTY NUMBER Chestnut Pt. MHP

DATE RECEIVED NOV 3 7 1939
DATE WELL COMPLETED 10 20 87

Depth of Well
22 105 26
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
CE-8B-0702

OWNER CHESTNUT PT MHP PARK
STREET OR RFD 85
DIVISION CHESTNUT PT MHP PARK SECTION LOT

WELL LOG		
Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET	Check if water bearing
	FROM TO	
TOP SOIL	0 6"	
CLAY SILT	6" 3'	
SAND GRAVEL	3' 28'	
SHALE	28 286"	
SAND GRAVEL	286" 60'	
gray water red CLAY	60 80	
med coarse TAN SAND	80 105	

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box)
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY EC
NO. OF BAGS 6 NO. OF POUNDS 300
GALLONS OF WATER 150
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 60 ft.

CASING RECORD
casing types insert appropriate code below
ST CO PL OT
STEEL CONCRETE PLASTIC OTHER
MAIN CASING TYPE PL
Nominal diameter top (main) casing (nearest inch) 7
Total depth of main casing (nearest foot) 95

OTHER CASING (if used)
diameter inch depth (feet) from to

SCREEN RECORD
screen type or open hole insert appropriate code below
ST BR HO PL OT
STEEL BRASS OPEN HOLE PLASTIC OTHER

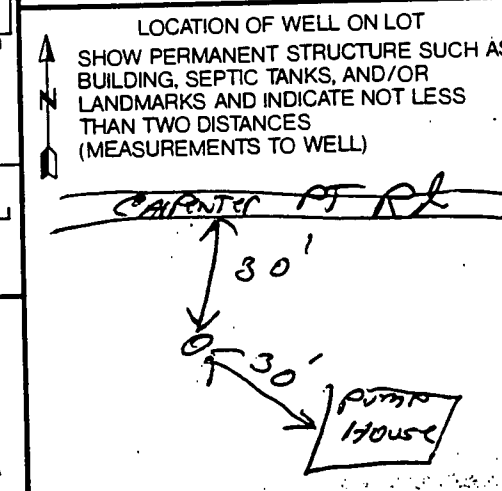
DEPTH (nearest ft.)
1 PL 95 105
2
3
EACH SCREEN
SLOT SIZE 20
DIAMETER OF SCREEN 4 (NEAREST INCH)
from 95 to 105

GRAVEL PACK 95 105
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
70 72 74 75 76
TELESCOPE LOG OTHER DATA
CASING INDICATOR

PUMPING TEST
HOURS PUMPED (nearest hour) 3
PUMPING RATE (gal. per min. to nearest gal.) 12
METHOD USED TO MEASURE PUMPING RATE Bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 60
WHEN PUMPING 85
TYPE OF PUMP USED (for test)
A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
above below
LAND SURFACE (nearest foot)



CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
TEST WELL CONVERTED TO PRODUCTION WELL
HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.
DRILLERS IDENT. NO. 283
DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)
SITE SUPERVISOR (sign of driller or journeyman)

B 1 0337 SEQUENCE NO. (DP USE ONLY) (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type		STATE PERMIT NUMBER CE-88-0696 fill in this form completely	
Date Received (APA) 080989 OWNER INFORMATION JOME MEADUM 938 LEEDS RD ELERTON MD 211921		B 3 LOCATION OF WELL C4371 CECIL GREENBANK FARMS SECTION 3 LOT 3 GREENBANK CHARLESTOWN MILES FROM TOWN (enter 0 if in town) 2 MI			
DRILLER INFORMATION R. SEWARD R. J. SEWARD & SON 2526 old COUNTY RD NEWARK DE 8/4/89		B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX) N W N E W TOWN E S W S E ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N WEST W SOUTH S EAST E DISTANCE FROM ROAD 15 FT ENTER FT or MI FT			
B 2 WELL INFORMATION APPROX. PUMPING RATE (GAL PER MIN.) 10 AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) 1000		USE FOR WATER (CIRCLE APPROPRIATE BOX) D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY) F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT) P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL) T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)			
APPROXIMATE DEPTH OF WELL 140 FEET		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Cecil COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S DATE ISSUED 081989 Charles E. Simpson 2/10/9 CO SIGNATURE NORTH GRID 629000 EAST GRID 1078000			
APPROXIMATE DIAMETER OF WELL 4 INCH		SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X SOURCES OF DRILLING WATER 1. well 2T office 2. 3. WRITE THE BOX NUMBER FROM THE MAP HERE E 1070 N 620			
METHOD OF DRILLING (circle one) BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary Drive-POINT other		REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX) N THIS WELL WILL NOT REPLACE AN EXISTING WELL Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY D THIS WELL WILL DEEPMEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41			
Not to be filled in by driller (OEP USE ONLY) APPROP. PERMIT NUMBER GAP FORCE WRITE INITIALS IN BOX PERMIT No. CE-88-0696		DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION N GREENBANK RD CARPENTER RD SITE			
SPECIAL CONDITIONS					

1801

SEQUENCE NO.
(DENV USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.COUNTY
NUMBER C43711 2 3
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)/CO USE ONLY
DATE Received

NOV 27 1989

DATE WELL COMPLETED

101887

Depth of Well

22 145 28
(TO NEAREST FOOT)

PERMIT NO.

FROM "PERMIT TO DRILL WELL"

CE-88-0696

OWNER SONES last name CARPENTER PT RD first name MERVIN TOWN CHARLES TOWN
STREET OR RFD GREEN BANK FARMS SECTION --- LOT 3
SUBDIVISION

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
TOP SOIL	0	6"	
CLAY SILT	6"	3'	
SAND GRAVEL	3'	60'	
RED CLAY	60	90'	
GRAY CLAY	90	120	
FINE SAND	120	135	✓
MED COARSE TAN-WHITE SAND	135	145	✓

GROUTING RECORD

WELL HAS BEEN GROUTED ☒ yes ☐ no

TYPE OF GROUTING MATERIAL

CEMENT ☒ CM BENTONITE CLAY ☒ BICNO. OF BAGS 6 NO. OF POUNDS 300GALLONS OF WATER 150

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 60 ft.
(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
below

ST	CO
STEEL	CONCRETE
PL	OT
PLASTIC	OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	135

OTHER CASING (if used)	diameter inch	depth (feet) from to

screen type
or open hole
insert
appropriate
code
below

ST	BR	HO
STEEL	BRASS	OPEN HOLE
	BRONZE	
	PL	OT
	PLASTIC	OTHER

EACH SCREEN	DEPTH (nearest ft.)	
	1	2
1	PL 135	145
2		
3		

SLOT SIZE 20DIAMETER OF SCREEN 4 (NEAREST INCH)GRAVEL PACK 135 to 145
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T	(E.R.O.S.)	W Q
70	72	74 75 78
TELESCOPE CASING		LOG INDICATOR
		OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 3PUMPING RATE (gal. per min. to nearest gal.) 18METHOD USED TO MEASURE PUMPING RATE BULBET

WATER LEVEL (distance from land surface)

BEFORE PUMPING 70WHEN PUMPING 110

TYPE OF PUMP USED (for test)

<input checked="" type="checkbox"/> A	<input type="checkbox"/> P	<input type="checkbox"/> T
Air	piston	turbine
<input type="checkbox"/> C	<input type="checkbox"/> R	<input type="checkbox"/> O
centrifugal	rotary	other (describe below)
<input type="checkbox"/> J	<input type="checkbox"/> S	
jet	submersible	

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES ☒ NO(CIRCLE) (YES or NO)
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLSEXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O)
IN BOX - SEE ABOVE:CAPACITY:
GALLONS PER MINUTE (to nearest gallon) 31PUMP HORSE POWER 37PUMP COLUMN LENGTH (nearest ft.) 43

CASING HEIGHT (circle appropriate box and enter casing height)

<input checked="" type="checkbox"/> above	LAND SURFACE
<input type="checkbox"/> below	<u>1</u> (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

CARPENTER PT RD
↓ 15'
0 35'
House

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 283DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)
Rebel JewellSITE SUPERVISOR (sign. of driller or journeyman)
Tim Seward #427

C1	3000	SEQUENCE NO. (DENV USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE		THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.	
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)					COUNTY NUMBER C4357	
ST/CO USE ONLY DATE Received DEC 5 1989		DATE WELL COMPLETED 10/08/89		Depth of Well 22 175 26 (TO NEAREST FOOT)		
				PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-0695		

OWNER Jones meruin first name GREEN BANK Rd TOWN Charlestown
STREET OR RFD 706 last name GREEN BANK Rd
SUBDIVISION GREEN BANK Farm's SECTION 2 LOT 2

WELL LOG
Not required for driven wells
STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
Top Soil	0	6	
CLAY m.y	6	8	
Red CLAY	8	50	
Purple Clay	50	75	
Red + White CLAY	75	120	
GRAY CLAY	120	150	
Red + White CLAY	150	165	
med Fine Sand	165	175	X

GROUTING RECORD
WELL HAS BEEN GROUTED
(Circle Appropriate Box)
TYPE OF GROUTING MATERIAL
CEMENT ☒ CM BENTONITE CLAY ☐ BC
NO. OF BAGS 6 NO. OF POUNDS 360
GALLONS OF WATER 150
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 50 ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER
MAIN CASING TYPE
Nominal diameter top (main) casing (nearest inch) 4
Total depth of main casing (nearest foot) 165

OTHER CASING (if used)
diameter inch depth (feet) from to
EACH CASING

SCREEN RECORD
screen type or open hole insert appropriate code below
ST BR HO
STEEL BRASS OPEN HOLE
PL OT
PLASTIC OTHER

DEPTH (nearest ft.)
EACH SCREEN
1 PL 165 175
2
3
SLOT SIZE 20
DIAMETER OF SCREEN 4 (NEAREST INCH)
from 165 to 175

GRAVEL PACK
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.)
W Q
74 75 76
TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMPING TEST
HOURS PUMPED (nearest hour) 4
PUMPING RATE (gal. per min. to nearest gal.) 28
METHOD USED TO MEASURE PUMPING RATE Bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 80
WHEN PUMPING 140
TYPE OF PUMP USED (for test)
☒ A air ☐ P piston ☐ T turbine
☐ C centrifugal ☐ R rotary ☐ O other (describe below)
☐ J jet ☐ S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP YES ☒ NO ☐
(CIRCLE) (YES or NO)
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY:
GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
PUMP HEIGHT (circle appropriate box and enter casing height)
☒ + above
☐ - below
LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)
House
250'

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 283
DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

<p>B 1</p> <p>0339</p> <p>SEQUENCE NO. (DP USE ONLY)</p>	<p>STATE OF MARYLAND</p> <p>APPLICATION FOR PERMIT TO DRILL WELL</p> <p>please print or type</p>	<p>STATE PERMIT NUMBER</p> <p>CE-88-0695</p> <p><small>70 fill in this form completely 79</small></p>
<p><small>(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)</small></p>		
<p>OWNER INFORMATION</p> <p>Date Received (APA) 080989</p> <p>15 Last Name 738 Leed 34 Owner First Name 70 State 72 Zip 78</p> <p>36 Street or RFD 55 E/KTOM 70 State 72 Zip 78</p>		
<p>DRILLER INFORMATION</p> <p>Driller's Name R.J. Seward 77 License No. 80 283</p> <p>Firm Name R.J. Seward & Son 19702</p> <p>Address 2526 Old County Rd. Newark De 2/4/89</p> <p>Signature R.J. Seward Date 2/4/89</p>		
<p>WELL INFORMATION</p> <p>APPROX. PUMPING RATE (GAL. PER MIN.) 10</p> <p>AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000</p>		
<p>USE FOR WATER (CIRCLE APPROPRIATE BOX)</p> <p><input checked="" type="radio"/> HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)</p> <p><input type="radio"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)</p> <p><input type="radio"/> INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)</p> <p><input type="radio"/> PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)</p> <p><input type="radio"/> TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)</p>		
<p>APPROXIMATE DEPTH OF WELL 140 FEET</p> <p>APPROXIMATE DIAMETER OF WELL 4 INCH</p>		
<p>METHOD OF DRILLING (circle one)</p> <p>BORED (or Augered) JETTED Jettied & DRIVEN</p> <p>30 AIR-ROTary AIR-PERcussion 37 CABLE REVerse-ROTary Drive-POINT</p> <p>other</p>		
<p>REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)</p> <p><input checked="" type="radio"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL</p> <p><input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED</p> <p>39 <input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY</p> <p><input type="radio"/> THIS WELL WILL DEEPEMED AN EXISTING WELL</p> <p>PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52</p>		
<p><small>Not to be filled in by driller (OEP USE ONLY)</small></p> <p>APPROP. PERMIT NUMBER 54 GAP 63</p> <p>FORCE 87 88 WRITE INITIALS IN BOX PERMIT No. CE-88-0695 70 71 72 73 74 75 76 77 78 79</p> <p>SPECIAL CONDITIONS</p>		

B 3 LOCATION OF WELL

C4357

8 COUNTY Cecili FARMS

23 SUBDIVISION Greenbank 42 706 GREENBANK

SECTION 44 46 LOT 46 50

CHARLESTOWN 52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 2 MI 73 76 77 78

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NEAR WHAT ROAD CARPENTER PT RD. 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 250 37 DISTANCE FROM ROAD ENTER FT or MI FT 38 39

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

L.Cecil

COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S 41

DATE ISSUED 081089 Charles E. Smyer 2/10

43 CO SIGNATURE 48 EXP. DATE

NORTH GRID 629000 55 EAST GRID 1078000 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. well at office

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070

N 620

000 000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N Burnt Bank Rd. * Carpenter's Pt. Rd.

Site

B14119SEQUENCE NO. (DP USE ONLY)

STATE OF MARYLAND PERMIT TO DRILL WELL

STATE PERMIT NUMBER

CE-88-0487

DATE RECEIVED (APA)

050489

OWNER INFORMATION

ALDAMESEJOHN

138 MOUNTAIN HILL RD

PERMYVILLE

MD 21903

DRILLER INFORMATION

R. SEWARD

R. J. SEWARD & SON

2526 OLD COUNTY RD NEWARK DE

5/1/89

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.)

10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)

1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)

P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)

T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL

140

FEET

APPROXIMATE DIAMETER OF WELL

4

NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered)

JETTED

ROTARY (Hydraulic Rotary)

AIR-ROTARY

AIR-PERCUSION

REVERSE-ROTARY

DRIVE-POINT

other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER

GAP

FORCE

WRITE INITIALS IN BOX

PERMIT NO.

CE-88-0487

SPECIAL CONDITIONS

LOCATION OF WELL

CECIL

C4014

8 COUNTY

21

23 SUBDIVISION

627

42

SECTION

44

46

LOT

48

50

PERMYVILLE

52 NEAREST TOWN

71

MILES FROM TOWN (enter 0 if in town)

2.25 MI

73

78

77

78

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

N

NE

E

SE

S

SW

W

NW

TOWN

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH

WEST

SOUTH

EAST

NEAR WHAT ROAD

MOUNTAIN HILL RD.

11

30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34

37

DISTANCE FROM ROAD

175

ENTER FT or MI

FT

38

39

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

COUNTY NO.

STATE SIGNATURE

DATE ISSUED

050989

CO SIGNATURE

Charles E. Smyer

EXP. DATE

11/9

41

NORTH GRID

632000

50

55

EAST GRID

1076000

57

63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. WELL OFFICE

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E

1070

N

630

000

000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

MOUNTAIN HILL RD

CHARTER HALL RD

BALDWIN

2000

3987

SEQUENCE NO.
(DENV USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.COUNTY C4014
NUMBERTHIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

DATE Received

DATE WELL COMPLETED

Depth of Well

PERMIT NO.
FROM "PERMIT TO DRILL WELL

AUG 29 1989

080489

22 140 28
(TO NEAREST FOOT)C E - 8 8 - 0 4 8 7
28 29 30 31 32 33 34 35 36 3OWNER ALBANESE JOHN
STREET OR RFD 138 MOUNTAIN HILL RD TOWN PERRYVILLE
DIVISION SECTION LOT 1

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

Check
if water
bearing

DESCRIPTION (Use additional sheets if needed)	FROM	TO	Check if water bearing
TOP SOIL	0	1	
BROWN SAND	1	20	
CLAY			
BROWN CLAY	20	42	
WHITE CLAY	42	69	
GRAY CLAY	69	128	
WHITE SAND	128	140	

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)yes no
Y N

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 3 NO. OF POUNDS 150

GALLONS OF WATER 150

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 30 ft.
(enter 0 if from surface)casing
types
insert
appropriate
code
below

CASING RECORD

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN Casing TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)

PL 4 130

OTHER CASING (if used)

diameter depth (feet)
inch from to

EACH CASING

screen type
or open hole

SCREEN RECORD

insert
appropriate
code
belowST BR HO
STEEL BRASS OPEN
PL PLASTIC HOLE
OT OTHER

C 2

DEPTH (nearest ft.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
PL																				
130																				
140																				

SLOT SIZE 020

DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK from 130 to 140

IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) WQ

70 72 74 75 76

TELESCOPE LOG DATA

PUMPING TEST

HOURS PUMPED (nearest hour) 2

PUMPING RATE (gal. per min. to nearest gal.) 20

METHOD USED TO MEASURE PUMPING RATE BUCKET

WATER LEVEL (distance from land surface)

BEFORE PUMPING 90

WHEN PUMPING 130

TYPE OF PUMP USED (for test)

A	P	T
air	piston	turbine
C	R	O
centrifugal	rotary	other (describe below)
J	S	
jet	submersible	

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USETYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O)
IN BOX - SEE ABOVE:CAPACITY:
GALLONS PER MINUTE
(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH
(nearest ft.)CASING HEIGHT (circle appropriate box
and enter casing height)

+	LAND SURFACE
above	(nearest foot)
-	
below	

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND/OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

CIRCLE APPROPRIATE LETTER
A- A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLHEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 10.17.13 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION
PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE.

DRILLER'S IDENT. NO. 283

DRILLER'S SIGNATURE
MUST MATCH SIGNATURE ON APPLICATION)

B 1 8364 SEQUENCE NO. (DP USE ONLY)

1 2 3 4 5 6 7 8
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER
C E - 88 - 0815
70 fill in this form completely 79

Date Received (APA) 092789
OWNER INFORMATION
Bender Construction
15 Last Name 8 Owner 34 First Name
50 Montrose Lane
36 Street or RFD 55
Elkton 70 State 72 Zip 76

DRILLER INFORMATION
Lawson Bradshaw 416
Driller's Name 77 License No. 80
Delmarva Drilling Co.
Firm Name
PO Box 188 Bridgeville De 19933
Address
Lawson Bradshaw 9/22/89
Signature Date

B 2 WELL INFORMATION
APPROX. PUMPING RATE (GAL PER MIN.) 10
8 12
AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) 300
14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
22 ☐ I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 120 FEET
24 28

APPROXIMATE DIAMETER OF WELL 4" NEAREST INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
30 AIR-ROTary AIR-PERcussion
37 CABLE REVERSE-ROTary ROTARY (Hydraulic Rotary)
other Drive-POINT

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)
☒ N THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
39 ☐ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ D THIS WELL WILL DEEPEIN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 52

Not to be filled in by driller (OEP USE ONLY)
APPROX. PERMIT NUMBER 54 GAP 63
FORCE 67 68 WRITE INITIALS IN BOX PERMIT No. C E - 88 - 0815
70 71 72 73 74 75 76 77 78 79

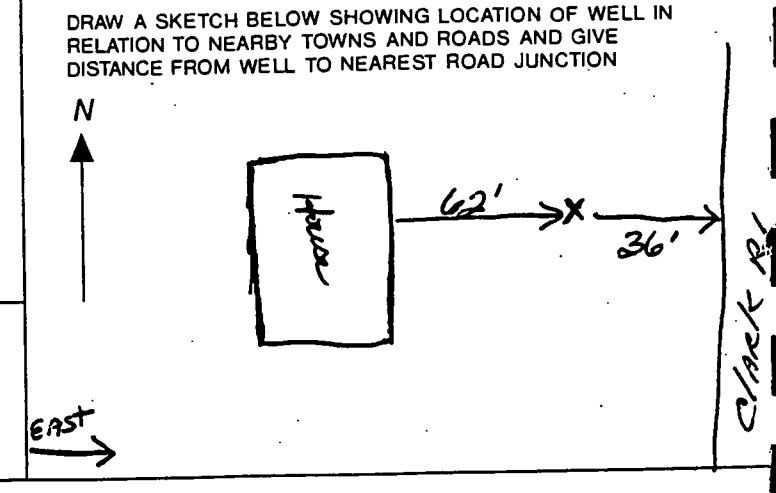
SPECIAL CONDITIONS

B 3 LOCATION OF WELL
1 2 Cecil C4836
8 COUNTY 21
GREENBANK 42
23 SUBDIVISION
SECTION 44 46 LOT 48 50
CHARLES TOWN MD 71
52 NEAREST TOWN
MILES FROM TOWN (enter 0 if in town) 2 MI
73 76 77 78

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
N W 8-9 N E 8-9
W 8 E 8
S W 8-9 S E 8-9
TOWN
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
NORTH N
WEST W 32 EAST E
SOUTH S
34 36 37
DISTANCE FROM ROAD
ENTER FT or MI 38 39

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
Cecil
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S 41
DATE ISSUED 092889 Charles E. Smyser 3/28/9
43 48 CO SIGNATURE EXP. DATE
NORTH GRID 630000 EAST GRID 1079000
50 55 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. TANKER (DDE)
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1070
N 630
DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



1921

SEQUENCE NO.
(DENV USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.COUNTY
NUMBER C4836(THIS NUMBER IS TO BE PUNCHED
IN COLUMNS 3-6 ON ALL CARDS)SYCO USE ONLY
DATE Received

DATE WELL COMPLETED

Depth of Well

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

OCT 31 1989

100489

22 155 26
(TO NEAREST FOOT)CE-88-0815
28 29 30 31 32 33 34 35 36 37OWNER Bender Construction
STREET OR RFD #50 Montrose Lane TOWN ELKTON
SUBDIVISION Greenbank SECTION C3 LOT 3

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed) FEET
FROM TO Check
if water
bearing

Top Soil	0	1	
White clay	1	19	
Med white sand	19	43	
Gravel	43	57	
Med & white clay	57	64	
Med coarse white sand	64	80	
Red & white clay	80	137	
Med coarse white sand	137	155	
Weathered rock	155	157	

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)YES ☒ NO ☐

TYPE OF GROUTING MATERIAL

CEMENT ☒ BENTONITE CLAY ☒NO. OF BAGS 4 NO. OF POUNDS 200GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 100 ft.
(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
belowST CO
STEEL CONCRETE
PL OT
PLASTIC OTHERMAIN
CASING
TYPENominal diameter
top (main) casing
(nearest inch)Total depth
of main casing
(nearest foot)PL4145EACH
CASING

OTHER CASING (if used)

diameter
inch from toscreen type
or open hole
insert
appropriate
code
below

SCREEN RECORD

ST BR HO
STEEL BRASS OPEN
PL BRONZE HOLE
PLASTIC OTHER

C2

EACH
SCREEN

DEPTH (nearest ft.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

SLOT SIZE 0.2 2 3 0DIAMETER
OF SCREEN 4 (NEAREST
INCH)from 130 to 155GRAVEL PACK 130 155
IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

W Q

70

72

74

75

76

TELESCOPE

LOG

OTHER DATA

C3

1

2

PUMPING TEST

HOURS PUMPED (nearest hour) 4PUMPING RATE (gal. per min. 30
to nearest gal.)METHOD USED TO
MEASURE PUMPING RATE mail

WATER LEVEL (distance from land surface)

BEFORE PUMPING 52WHEN PUMPING 100

TYPE OF PUMP USED (for test)

☒ A at ☐ P piston ☐ T turbine☐ C centrifugal ☐ R rotary ☐ O other
(describe below)☐ J jet ☐ S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP
(CIRCLE) (YES or NO) ☒ YES ☐ NOIF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS

EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)

IN BOX - SEE ABOVE: S

CAPACITY:

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH

(nearest ft.)

CASING HEIGHT (circle appropriate box

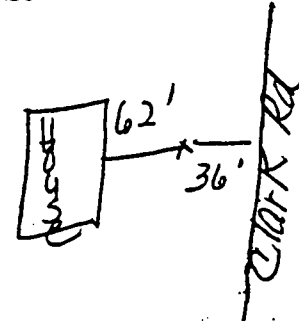
and enter casing height)

☒ above☐ below

LAND SURFACE

1 (nearest
foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND/OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)DRILLERS IDENT. NO. 416DRILLERS SIGNATURE
MUST MATCH SIGNATURE ON APPLICATION

SITE SUPERVISOR (sign of driller or journeyman)

B1

3458

SEQUENCE NO.
(DP USE ONLY)

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STATE OF MARYLAND

APPLICATION FOR PERMIT TO DRILL WELL

please print or type

STATE PERMIT NUMBER

CE-88-1241

fill in this form completely

Date Received (APA)

215-328 0186

052990

OWNER INFORMATION

Robins

James

129 Woodall Rd

Perryville

421903

DRILLER INFORMATION

Timothy J Seward

427

77 License No. 80

Rob Seward and Son

158 Blackbird St. Rd Townsend Ok. 1973

Timothy J Seward

5-21-90

WELL INFORMATION

APPROX. PUMPING RATE (GAL PER MIN.)

170

AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY)

1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)

PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)

TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL

132

FEET

APPROXIMATE DIAMETER OF WELL

4"

NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered)

JETTED

Jettied & DRIVEN

AIR-ROTary

AIR-PERCussion

ROTARY (Hydraulic Rotary)

CABLE

REverse-ROTary

Drive-POINT

other

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

41

52

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER

54

63

FORCE

WRITE INITIALS IN BOX

PERMIT No.

CE-88-1241

70

71

72

73

74

75

76

77

78

79

SPECIAL CONDITIONS

LOCATION OF WELL

Replacement

8 COUNTY

21

23 SUBDIVISION

42

SECTION

44

48

48

50

52 NEAREST TOWN

71

MILES FROM TOWN (enter 0 if in town)

3

73

78

77

78

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

N

NE

E

SE

S

SW

W

NW

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH

N

WEST

W

SOUTH

S

EAST

E

34

37

DISTANCE FROM ROAD

20

ENTER FT or MI

FT

38

39

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

COUNTY NO.

STATE SIGNATURE

DATE ISSUED

053090

CO SIGNATURE

Charles E. Smyser

EXP. DATE

11/3

NORTH GRID

629000

EAST GRID

1080000

50

55

57

63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. WELL AT OFFICE

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E

1080

N

620

000

000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

CARPENTERS PT RD

WOODALL RD

1500

* SITE

129 woodall Rd

7787		SEQUENCE NO. (DENV USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE		THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.	
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)				COUNTY NUMBER	Replacement	
DATE RECEIVED JUL 18 1990		DATE WELL COMPLETED 070290		Depth of Well 22 120 26 (TO NEAREST FOOT)		PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-1241
OWNER Robins James		last name first name		TOWN Charles town		
STREET OR RFD 124 Wood Hill Rd.				SECTION		LOT
SUBDIVISION GREEN Bank						
WELL LOG Not required for driven wells STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) TYPE OF GROUTING MATERIAL CEMENT CM BENTONITE CLAY BC NO. OF BAGS 4 NO. OF POUNDS 200 GALLONS OF WATER 125 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 40 ft. (enter 0 if from surface)		C 3 1 2 PUMPING TEST HOURS PUMPED (nearest hour) 3 PUMPING RATE (gal. per min. to nearest gal.) 15 METHOD USED TO MEASURE PUMPING RATE Bucket WATER LEVEL (distance from land surface) BEFORE PUMPING 60 WHEN PUMPING 95 TYPE OF PUMP USED (for test) A piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible		
DESCRIPTION (Use additional sheets if needed)		FEET FROM TO		Check if water bearing		
Top Soil 0 6'						
Shale Stone 6 8'						
Sand mix 8 30						
Red clay 30 80						
Red white clay 80 100						
White clay 100 110						
Red white sand 110 120						
Casing types insert appropriate code below		Casing Record ST CO STEEL CONCRETE PL OT PLASTIC OTHER		MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot) PL 4 120		
OTHER CASING (if used) diameter inch depth (feet) from to		SCREEN RECORD ST BR HO STEEL BRASS OPEN HOLE PL BRONZE PLASTIC OTHER		C 2 1 2 DEPTH (nearest ft.) PL 110 120		
CIRCLE APPROPRIATE LETTER A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P TEST WELL CONVERTED TO PRODUCTION WELL		SLOT SIZE 20 2 3 DIAMETER OF SCREEN 4 (NEAREST INCH) from 110 to 120 GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68		PUMP INSTALLED DRILLER WILL INSTALL PUMP YES NO IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: CAPACITY: GALLONS PER MINUTE (to nearest gallon) PUMP HORSE POWER PUMP COLUMN LENGTH (nearest ft.) CASING HEIGHT (circle appropriate box and enter casing height) + above - below LAND SURFACE (nearest foot)		
HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.		TELESCOPE CASING LOG INDICATOR OTHER DATA		LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL) House 35' well 25' Woodhill Road		
DRILLERS IDENT. NO. 427 DRILLERS SIGNATURE MUST MATCH SIGNATURE ON APPLICATION L. Christy		SITING SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)				

<p>CIRCLE APPROPRIATE LETTER</p> <p>A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED</p> <p>E ELECTRIC LOG OBTAINED</p> <p>P TEST WELL CONVERTED TO PRODUCTION WELL</p>	<p>3 38 39 41 45 47 51</p> <p>SLOT SIZE 1 <u>20</u> 2 _____ 3 _____</p> <p>DIAMETER OF SCREEN <u>4</u> _____ (NEAREST INCH)</p>	<p>LOCATION OF WELL ON LOT</p> <p>SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)</p>
<p>I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.</p>	<p>GRAVEL PACK <u>121</u> from _____ to <u>127</u></p> <p>IF WELL DRILLED WAS FLOWING WELL INSERT <input type="checkbox"/> IN BOX 68</p>	<p style="text-align: center;">X</p> <p style="text-align: center;">to</p>
<p>DRILLERS IDENT. NO. <u>25</u></p> <p><i>Donald S. Newman</i></p> <p>DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)</p> <p><i>Donald S. Newman</i></p>	<p>OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)</p> <p>T (E.R.O.S.)</p> <p>70 <input type="checkbox"/> 72 <input type="checkbox"/></p> <p>TELESCOPE CASING LOG INDICATOR</p>	<p>W Q</p> <p>74 75 76</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>OTHER DATA</p>
<p>SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)</p> <p><i>Donald S. Newman</i></p>	<p style="text-align: center;">House</p>	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		EMERGENCY/TEMP NO. IF ANY		D5743			
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		SEQUENCE NO. (DP USE ONLY)		STATE OF MARYLAND		STATE PERMIT NUMBER	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		08519		APPLICATION FOR PERMIT TO DRILL WELL		CE-93-0380	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)		please print or type		fill in this form completely	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		Date Received (APA)		B 3		LOCATION OF WELL	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		040194		OWNER INFORMATION		CECIL	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		BEDDOE MICHAEL		8 COUNTY		D5743	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		KP BOX 48A		23 SUBDIVISION		GREENBANK	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		ThomTson		SECTION		LOT	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		PA18465		44 48		48 50	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		TOWN		52 NEAREST TOWN		CHARLESTOWN	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		DRILLER INFORMATION		MILES FROM TOWN (enter 0 if in town)		2 MI	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		DONALD S. NEUNAM		77 License No. 80		Woodall Rd.	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		Share Well Drillers		DIRECTION OF WELL FROM TOWN (CIRCLE BOX)		NEAR WHAT ROAD	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		Cecilton, Md. 21913		ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)		ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		Donald S. Neunam		DATE		DISTANCE FROM ROAD	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		3/30/94		WELL INFORMATION		ENTER FT or MI	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		APPROX. PUMPING RATE (GAL PER MIN.)		AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY)		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		10		1000		Cecil	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		USE FOR WATER (CIRCLE APPROPRIATE BOX)		DATE ISSUED		COUNTY NO.	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)		040594		STATE SIGNATURE	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)		CO SIGNATURE		INSERT S	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)		NORTH GRID		EAST GRID	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)		630000		1080000	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)		SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X		DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		APPROXIMATE DEPTH OF WELL		APPROXIMATE DIAMETER OF WELL		47 Woodall Road	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		150 FEET		4 INCH		D5743	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		METHOD OF DRILLING (circle one)		WRITE THE BOX NUMBER FROM THE MAP HERE		N	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		BORED (or Augered) JETTED Jetted & DRIVEN		1080		630	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)		N		N	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		CABLE REVERSE-ROTary Drive-POINT		REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)		N	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		other		N THIS WELL WILL NOT REPLACE AN EXISTING WELL		N	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)		Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED		N	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		Not to be filled in by driller (OEP USE ONLY)		S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY		N	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		APPROX. PERMIT NUMBER		D THIS WELL WILL DEEPEN AN EXISTING WELL		N	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54							

B 1 08503 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-8 ON ALL CARDS)		SEQUENCE NO. (DP USE ONLY)		STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type		STATE PERMIT NUMBER 08-93-0296 fill in this form completely	
Date Received (APA) 01/19/94 OWNER INFORMATION Last Name: McMINNEN, First Name: DONALD S., Street or RFD: NORTHWEST, Town: MORTON, State: MD, Zip: 20785				B 3 LOCATION OF WELL Standby R95 8 COUNTY: Cecil, 23 SUBDIVISION: 44, LOT: 48, 52 NEAREST TOWN: MORTON, MILES FROM TOWN: 4 MI			
DRILLER INFORMATION Driller's Name: DONALD S. McMINNEN, 77 License No.: 25, Firm Name: Shore Well Drillers, Address: Cecil Town, MD 21913, Signature: Donald S. McMinnen, Date: 1/19/94				B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX): S, NEAR WHAT ROAD: McMinney Town Rd, ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): E, DISTANCE FROM ROAD: 300 FT			
B 2 WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.): 10, AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 1000				USE FOR WATER (CIRCLE APPROPRIATE BOX): <input checked="" type="checkbox"/> HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY), <input type="checkbox"/> FARMING, <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER, <input type="checkbox"/> PUBLIC OR PRIVATE WATER COMPANY, <input type="checkbox"/> APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL, <input type="checkbox"/> TEST, OBSERVATION, MONITORING			
APPROXIMATE DEPTH OF WELL: 250 FEET, APPROXIMATE DIAMETER OF WELL: 4 INCH				NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Cecil COUNTY NAME: Cecil, COUNTY NO.: 41, STATE SIGNATURE: Charles E. Smyer, DATE ISSUED: 01/26/94, EXP. DATE: 1/25/95, NORTH GRID: 626000, EAST GRID: 1098000			
METHOD OF DRILLING (circle one): JETTED & DRIVEN, BORED (or Augered), AIR-ROTARY, AIR-PERCussion, ROTARY (Hydraulic Rotary), CABLE, REVERSE-ROTARY, DRIVE-POINT, other:				SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X: SOURCES OF DRILLING WATER: 1. Town-Cecil, 2. , 3. , WRITE THE BOX NUMBER FROM THE MAP HERE: E 1090, N 620			
REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX): <input checked="" type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY, PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE): 08-04-5547				DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION: Sketch showing McMinney Town Rd and well location.			
APPROX. PERMIT NUMBER: 0893GAP039, FORCE: CS, PERMIT No.: 08-93-0296				SPECIAL CONDITIONS:			

11055

SEQUENCE NO.
(DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

Standby R-958-89

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

CE-93-0296

T/CO USE ONLY
DATE Received

DATE WELL COMPLETED

03/6/94

Depth of Well

2224126

(TO NEAREST FOOT)

OWNER Black Hill Ranger Station

STREET OR RFD McNairy Tower Rd

SUBDIVISION

SECTION

LOT

first name

TOWN NORTH EAST, MD.

WELL LOG		
Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET	
	FROM	TO
Yellow-white sand-clay	0	11
Red-white-gray clay	11	113
White-gray clay-sand	113	136
Red-white-gray clay	136	213
Light white sand	213	226
Coarse white sand	226	241

GROUTING RECORD

WELL HAS BEEN GROUTED

(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 10 NO. OF POUNDS 500

GALLONS OF WATER 200

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 230 ft.

(enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN CASING TYPE

PL 4 231

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

OTHER CASING (if used)

diameter inch

depth (feet) from to

screen type or open hole

insert appropriate code below

ST BR HO
STEEL BRASS OPEN HOLE
PL OT
PLASTIC OTHER

C2

DEPTH (nearest ft.)

PL 231 241

EACH SCREEN

SLOT SIZE 20

DIAMETER OF SCREEN 4 (NEAREST INCH)

from 230 to 241

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 25

DRILLERS SIGNATURE Donald S. Murray

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GRAVEL PACK 230 241

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

W Q

70 72 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.) 30

METHOD USED TO MEASURE PUMPING RATE bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 162

WHEN PUMPING 230

TYPE OF PUMP USED (for test)

A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP (CIRCLE) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: S

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 10

PUMP HORSE POWER 1

PUMP COLUMN LENGTH (nearest ft.) 220

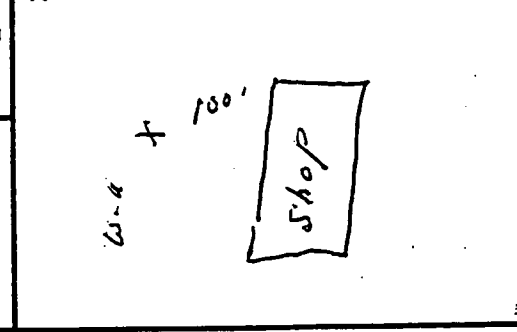
CASING HEIGHT (circle appropriate box and enter casing height)

+ above - below

LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENT AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 8/19/96 (month/day/year)

- * PERMIT NUMBER OF ABANDONED WELL (if any)
- * PERMIT NUMBER OF REPLACEMENT WELL

PERSON ABANDONING WELL: E.J. DOUGHERTY w/DNR

WELL DRILLERS LICENSE NUMBER: N/A
CIRCLE: MWD/MSD/MG

OWNER'S NAME: DNR - FOREST SERVICE

WELL LOCATION:

COUNTY: CECIL
NEAREST TOWN: NORTHEAST
TAX MAP _____ BLOCK _____ PARCEL _____
SUBDIVISION: _____
SECTION: _____ LOT: _____

MARYLAND GRID COORDINATES

BOX NUMBER E _____
N _____

UNKNOWN 1960's LATE Construction
CE-04-5547?

CE-93-0296

000	
000	

SHOW WELL LOCATION
BY X WITHIN BOX

TYPE OF WELL BEING ABANDONED:

☒ DRILLED ☐ JETTED
☐ BORED/AUGURED ☐ HAND DUG
☐ OTHER (specify) _____

USE CODE:

☒ DOMESTIC ☐ MUNICIPAL/PUBLIC
☐ IRRIGATION ☐ INDUSTRIAL
☐ TEST/OBSERVATION

TYPE OF CASING:

☒ STEEL ☐ PLASTIC
☐ CONCRETE ☐ OTHER (specify) _____

SIZE OF CASING: 6" INCHES IN DIAMETER

DEPTH OF WELL: 200ft FEET DEEP MEASURED w/ STRING LINE

WAS ANY CASING REMOVED? ☐ YES ☒ NO
if yes, length removed, in feet: _____

WAS CASING RIPPED OR PERFORATED? ☐ YES ☒ NO

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
3/8" BENTONITE CHIPS PLUG EVERY 30FT w/ WASHED PEA GRAVEL BETWEEN PLUGS - WELL IN PIT ~ 5FT b GRADE		

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN

LICENSE #

CIRCLE ONE

DATE

DENV 828

JULY 1993

ERIC J. DOUGHERTY, MDE
WMA

C1386

SEQUENCE NO.
(DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

Repl. R572

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

C E - 9 3 - 0 0 9 4

DATE WELL COMPLETED

092393

Depth of Well

226128

(TO NEAREST FOOT)

OWNER

FOLSMAN

STREET OR RFD

372 Mountain Hill Rd

TOWN

Perryville

SUBDIVISION

SECTION

LOT

WELL LOG		
Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET	
	FROM	TO
Top Soil	0	6
Silty Sand	6	3'
Sand gravel	3'	18'
multicolor clay	18	34
pea gravel	34	44
med coarse sand	44	61

GROUTING RECORD

WELL HAS BEEN GROUTED

(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 3 NO. OF POUNDS 130

GALLONS OF WATER 73

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 30 ft.

(enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

ST CO

STEEL CONCRETE

PL OT

PLASTIC OTHER

MAIN CASING TYPE

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

PL 4 51

60 61 63 64 66 70

OTHER CASING (if used)

diameter inch

depth (feet) from to

SCREEN RECORD

screen type or open hole insert appropriate code below

ST BR HO

STEEL BRASS OPEN HOLE

PL PL BRONZE OT

PLASTIC OTHER

DEPTH (nearest ft.)

PL 51 61

8 9 11 15 17 21

23 24 26 30 32 36

38 39 41 45 47 51

SLOT SIZE 20 3

DIAMETER OF SCREEN 4 51 61

(NEAREST INCH)

58 60 62

GRAVEL PACK

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

W Q

74 75 76

70 72

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour)

3

PUMPING RATE (gal. per min. to nearest gal.)

5

METHOD USED TO MEASURE PUMPING RATE

Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING

25

WHEN PUMPING

55

TYPE OF PUMP USED (for test)

A air P piston T turbine

27 27 27

C centrifugal R rotary O other (describe below)

27 27 27

J jet S submersible

27 27

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

(CIRCLE) (YES or NO)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)

IN BOX - SEE ABOVE:

CAPACITY:

GALLONS PER MINUTE

(to nearest gallon)

0.5

PUMP HORSE POWER

1.5

PUMP COLUMN LENGTH (nearest ft.)

55

CASING HEIGHT (circle appropriate box and enter casing height)

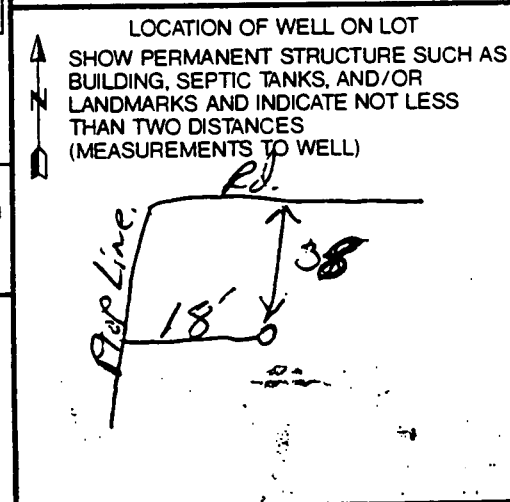
above below

LAND SURFACE

(nearest foot)

1

49 50 51



CIRCLE APPROPRIATE LETTER

A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

ELECTRIC LOG OBTAINED

TEST WELL CONVERTED TO PRODUCTION WELL

HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO.

071

DRILLERS SIGNATURE

MUST MATCH SIGNATURE ON APPLICATION

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

B 1 **00026**

SEQUENCE NO.
(DP USE ONLY)

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please print or type

STATE PERMIT NUMBER

C E - 9 3 - 0 0 9 4

fill in this form completely

Date Received (APA) **642-2306**

092093 OWNER INFORMATION

F O R S M A N **B R I A N**

15 Last Name Owner First Name

5 9 2 **M O U N T A I N H I L L R D**

38 Street or RFD

P E R R Y V I L L E **W D 2 1 9 0 3**

57 Town 70 State 72 Zip 78

DRILLER INFORMATION

Timothy J Seward **0 9 7**

Driller's Name 77 License No. 80

RT Seward and son

Firm Name

158 BLACKBIRD ST. RD TOWN OF PAX

Address

Timothy J Seward **9-20-73**

Signature Date

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL PER MIN.) **1 0**

8 12

AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) **1 0 0 0**

14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)

☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)

☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL **2 0** FEET

24 28

APPROXIMATE DIAMETER OF WELL **4"** NEAREST INCH

METHOD OF DRILLING (circle one)

☒ BORED (or Augered) ☐ JETTED ☐ Jetted & DRIVEN

☐ AIR-ROTary ☐ AIR-PERcussion ☒ ROTARY (Hydraulic Rotary)

☐ CABLE ☐ REVerse-ROTary ☐ Drive-POINT

other

REPLACEMENT OR DEEPEENED WELLS (CIRCLE APPROPRIATE BOX)

☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL

☒ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

☐ THIS WELL WILL DEEPEEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEENED (IF AVAILABLE) **41** **NONE** **52**

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER **54** **G A P** **63**

FORCE **67** **68** WRITE INITIALS IN BOX

PERMIT No. **C E - 9 3 - 0 0 9 4**

70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

B 3 LOCATION OF WELL

C E C I L Rep1. R572

8 COUNTY 21

23 SUBDIVISION 42

SECTION **44** **48** LOT **48** **50**

P E R R Y V I L L E

52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) **2.5** **M I**

73 78 77 78

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

N **NE** **E** **SE** **S** **SW** **W** **NW**

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

Mountain Hill Rd

11 NEAR WHAT ROAD 30

NORTH **W** **S** **E** **WEST** **SOUTH**

34 **25** 37

DISTANCE FROM ROAD

ENTER FT or MI **25**

38 39

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME COUNTY NO.

STATE SIGNATURE **Charles E. Smyer** INSERT S **41**

DATE ISSUED **0 9 2 1 9 3** **9/20/**

43 48 CO SIGNATURE EXP. DATE

NORTH GRID **6 3 5 0 0 0** EAST GRID **1 0 7 5 0 0 0**

50 55 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. **Well AT OFFICE.**

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

1070

630

000 000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N

RT 40 EAST

RT 7

Mountain Hill Rd

ASite

AMTRACK RR.

11333

SEQ. NO. (DENY USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

D5835

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

08-93-0041

T/CO USE ONLY
DATE RECEIVED

001 28 1993

DATE WELL COMPLETED

10/5/93

Depth of Well

2218528

(TO NEAREST FOOT)

OWNER

WOOD DAVID JAMES

last name

PO BOX E

first name

TOWN

NORTH EAST

STREET OR RFD

SUBDIVISION

GREEN BANK

SECTION

LOT

1

WELL LOG		
Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET	
	FROM	TO
Topsoil	0	6
Sand gravel	6	20
Sand clay mix	20	29
Fine sand	29	40
Red clay	40	80
Gray clay	80	110
Fine gray sand	110	140
Silty sand	140	160
Med coarse	160	185
White sand		

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT ☒ BENTONITE CLAY ☒

NO. OF BAGS 4 NO. OF POUNDS 100

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 40 ft.

(enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN CASING TYPE

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

PL 09 175

60 81 63 64 66 70

C 3

PUMPING TEST

HOURS PUMPED (nearest hour)

3

PUMPING RATE (gal. per min. to nearest gal.)

15

METHOD USED TO MEASURE PUMPING RATE

Buck

WATER LEVEL (distance from land surface)

BEFORE PUMPING

85

WHEN PUMPING

160

TYPE OF PUMP USED (for test)

☒ air ☐ piston ☐ turbine

☒ centrifugal ☐ rotary ☐ other (describe below)

☐ jet ☐ submersible

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

☒ TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO.

097

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

OTHER CASING (if used)

diameter inch

depth (feet) from to

SCREEN RECORD

screen type or open hole insert appropriate code below

ST BR HO
STEEL BRASS OPEN HOLE
PL BRONZE
PLASTIC OTHER

C 2

DEPTH (nearest ft.)

PL 175 185

8 9 11 15 17 21

23 24 26 30 32 36

38 39 41 45 47 51

SLOT SIZE 29

DIAMETER OF SCREEN

(NEAREST INCH)

from 175 to 185

GRAVEL PACK

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

W Q

70 72 74 75 76

TELESCOPE CASING

LOG INDICATOR

OTHER DATA

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES ☒

(CIRCLE) (YES or NO)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)

IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

☒ above ☐ below

LAND SURFACE

(nearest foot)

1

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

House

225'

<p>B 1 00034</p> <p>SEQUENCE NO. (DP USE ONLY)</p> <p>(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)</p>	<p>STATE OF MARYLAND</p> <p>APPLICATION FOR PERMIT TO DRILL WELL</p> <p>please print or type</p>	<p>STATE PERMIT NUMBER</p> <p>C E - 9 3 - 0 0 4 1</p> <p>fill in this form completely</p>
<p>Date Received (APA)</p> <p>08/16/93</p> <p>OWNER INFORMATION</p> <p>WOOD DAVID - JANE T</p> <p>15 Last Name 13 Owner First Name 34</p> <p>PO BOX E</p> <p>38 Street or RFD 55</p> <p>NORTHEAST MD</p> <p>57 Town 70 State 72 Zip 78</p>	<p>B 3</p> <p>LOCATION OF WELL D5835</p> <p>8 COUNTY 21</p> <p>GREEN BANK</p> <p>23 SUBDIVISION 42</p> <p>SECTION 44 46 LOT 48 50</p> <p>CHARLES TOWN</p> <p>52 NEAREST TOWN 71</p> <p>MILES FROM TOWN (enter 0 if in town) 3 MI</p> <p>73 76 77 78</p>	<p>DRILLER INFORMATION</p> <p>Timothy J Seward</p> <p>Driller's Name 77 License No. 80</p> <p>R.J. Seward and Son</p> <p>Firm Name</p> <p>15813 Blackbird St. Rd. Tanawanda, NY</p> <p>Address</p> <p>Timothy J Seward 8/12/93</p> <p>Signature Date</p>
<p>B 2</p> <p>WELL INFORMATION</p> <p>APPROX. PUMPING RATE (GAL. PER MIN.) 10</p> <p>8 12</p> <p>AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000</p> <p>14 20</p>	<p>B 4</p> <p>DIRECTION OF WELL FROM TOWN (CIRCLE BOX)</p> <p>NEAR WHAT ROAD</p> <p>CHALK RD</p> <p>11 30</p> <p>ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)</p> <p>NORTH W 32 E WEST SOUTH EAST</p> <p>34 150 37</p> <p>DISTANCE FROM ROAD</p> <p>ENTER FT or MI FT</p> <p>38 39</p>	<p>USE FOR WATER (CIRCLE APPROPRIATE BOX)</p> <p><input checked="" type="checkbox"/> HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)</p> <p><input type="checkbox"/> F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)</p> <p><input type="checkbox"/> I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)</p> <p><input type="checkbox"/> P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)</p> <p><input type="checkbox"/> T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)</p>
<p>APPROXIMATE DEPTH OF WELL 180 FEET</p> <p>24 28</p> <p>APPROXIMATE DIAMETER OF WELL 4 INCH</p> <p>NEAREST</p>	<p>NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL</p> <p>Cecil</p> <p>COUNTY NAME COUNTY NO.</p> <p>STATE SIGNATURE INSERT S 41</p> <p>DATE ISSUED 08/18/93</p> <p>43 48 CO SIGNATURE 57 63</p> <p>NORTH GRID 630000 EAST GRID 1079000</p> <p>50 55 57 63</p>	
<p>METHOD OF DRILLING (circle one)</p> <p>BORED (or Augered) JETTED Jetted & DRIVEN</p> <p>30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)</p> <p>37 CABLE REVerse-ROTary Drive-POINT</p> <p>other</p>	<p>SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X</p> <p>SOURCES OF DRILLING WATER</p> <p>1. WELL AT OFFICE</p> <p>2.</p> <p>3.</p> <p>WRITE THE BOX NUMBER FROM THE MAP HERE</p> <p>E 1070</p> <p>N 630</p> <p>000 000</p>	
<p>REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)</p> <p><input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL</p> <p><input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED</p> <p>39 <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY</p> <p><input type="checkbox"/> THIS WELL WILL DEEPEIN AN EXISTING WELL</p> <p>PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 52</p>	<p>DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION</p> <p>CHALK RD</p> <p>CHARTER PT RD</p> <p>was drilled</p>	
<p>Not to be filled in by driller (OEP USE ONLY)</p> <p>APPROP. PERMIT NUMBER 54 63</p> <p>FORCE 67 68 WRITE INITIALS IN BOX PERMIT No. C E - 9 3 - 0 0 4 1</p> <p>70 71 72 73 74 75 76 77 78 79</p> <p>SPECIAL CONDITIONS</p>		

1331

SEQUENCE NO.
(DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

R746

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

CE-93-0039

DATE RECEIVED
JAN 25 1994

DATE WELL COMPLETED
120393

Depth of Well
22 139 26
(TO NEAREST FOOT)

OWNER Brown, Joanne
STREET OR RFD 113 Wood All
SUBDIVISION GREEN BANK SECTION LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)

FEET

FROM

TO

Check if water bearing

Top Soil 0 6

Sand CLAY mix 6 10

Shale + Clay 10 20

Red CLAY 20 60

Gray + White CLAY 60 80

White CLAY 80 130

Sand mix 130 139

med coarse Sand

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

YES ☒ NO ☐

TYPE OF GROUTING MATERIAL

CEMENT ☒ BENTONITE CLAY ☒

NO. OF BAGS 5 NO. OF POUNDS 200

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 60 ft.

CASING RECORD

case types insert appropriate code below

STEEL ☒ CONCRETE ☐

PLASTIC ☐ OTHER ☐

MAIN CASING TYPE

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

PL 4 129

OTHER CASING (if used)

diameter inch

depth (feet) from to

SCREEN RECORD

screen type or open hole

insert appropriate code below

STEEL ☒ BRASS ☐ OPEN HOLE ☐

BRONZE ☐ PLASTIC ☐ OTHER ☐

DEPTH (nearest ft.)

PL 129 139

SLOT SIZE 10

DIAMETER OF SCREEN 4

from 129 to 139

PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 20

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 40

WHEN PUMPING 120

TYPE OF PUMP USED (for test)

A air ☒ P piston ☐ T turbine ☐

C centrifugal ☐ R rotary ☐ O other (describe below) ☐

J jet ☐ S submersible ☐

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES ☒ NO ☐

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

LAND SURFACE (nearest foot)

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 097

DRILLERS SIGNATURE

SITE SUPERVISOR (sign of driller or journeyman)

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

TELESCOPE CASING

LOG INDICATOR

OTHER DATA

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

House

32'

25'

Wood All Rd

28.580 8/10/93 #87910 BPM

EMERGENCY/TEMP NO. IF ANY

B 1 00013

SEQUENCE NO.
(DP USE ONLY)STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

CE-93-0039

please print or type

fill in this form completely

Date Received (APA)

08/10/93

OWNER INFORMATION

398-6400-EXT 2166

BROWN JOHNNIE

213 WOODHALL RD

PERRYVILLE MD 21903

DRILLER INFORMATION

Timothy J Seward 0977

R S Seward And son

158 BLACKBIRD ST. RD Towson Md 21204

Timothy J Seward 8/9/93

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 20

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 140 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH NEAREST

METHOD OF DRILLING (circle one)

- ☒ BORED (or Augered) ☐ JETTED ☐ Jetted & DRIVEN
- ☐ AIR-ROTARY ☐ AIR-PERCussion ☒ ROTARY (Hydraulic Rotary)
- ☐ CABLE ☐ REVERSE-ROTARY ☐ Drive-POINT
- other _____

REPLACEMENT OR DEEPEMED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☒ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ THIS WELL WILL DEEPEMED AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 CE-73-2089 52

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER 54 GAP 63

FORCE 87 88 WRITE INITIALS IN BOX PERMIT No. CE-93-0039 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

LOCATION OF WELL

8 COUNTY 21 Repl. R746

23 SUBDIVISION 42

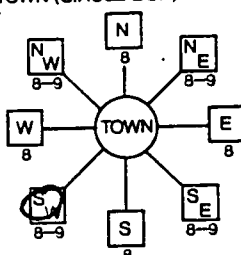
SECTION 44 46 LOT 48 50

52 NEAREST TOWN: 71

MILES FROM TOWN (enter 0 if in town) 73 78 77 78

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 WOODHALL RD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH
W 32 E
WEST SOUTH

34 20 37 DISTANCE FROM ROAD

ENTER FT or MI FT 38 39

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

COUNTY NO.

STATE

SIGNATURE

INSERT S

DATE ISSUED

081893 5/17/93

43 NORTH GRID 638000 48 CO SIGNATURE 55 EAST GRID 10800000 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

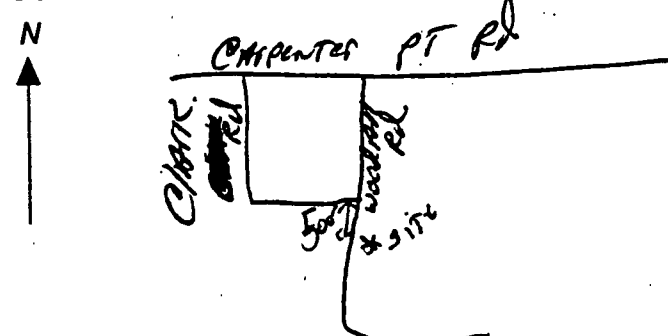
SOURCES OF DRILLING WATER

1. WELL AT OFFICE
- 2.
- 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



1 00073

SEQUENCE NO.
(DP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER

CE-92-0441
fill in this form completely

(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-8 ON ALL CARDS)

Date Received (APA)

062593

OWNER INFORMATION

8 13
R H G L E S R O W N I E
15 Last Name Owner First Name 34
103 C O S I L A N E
36 Street or RFD 55
E I K T O W N
57 Town 70 State 72 Zip 78

DRILLER INFORMATION

Driller's Name 77 License No. 80
DONALD S. NEUMAN 25
Shore Well Drillers
Firm Name
CECIL TOW, MD 21913
Address
DONALD S. NEUMAN 6/24/93
Signature Date

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 16
8 12
AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY) 1500
14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 130 FEET
24 28

APPROXIMATE DIAMETER OF WELL 4 INCH
NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)
32 CABLE REVERSE-ROTary DRIVE-POINT
other

REPLACEMENT OR DEEPEINED WELLS
(CIRCLE APPROPRIATE BOX)

- ☒ N THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ D THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED
(IF AVAILABLE) 41 52

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER 54 GAP 63

FORCE 87 88 WRITE INITIALS IN BOX PERMIT No. CE-92-0441
70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

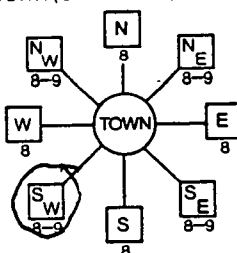
B 3

LOCATION OF WELL

1 2
CECIL
8 COUNTY C5621
GREENBANK FARMS
23 SUBDIVISION 42
SECTION 44 46 LOT 6 48 50
CECIL TOWNSHIP
52 NEAREST TOWN 71
MILES FROM TOWN (enter 0 if in town) 1 MI
73 78 77 78

B 4

DIRECTION OF WELL FROM
TOWN (CIRCLE BOX)



11 GREENBANK COURT 30
NEAR WHAT ROAD

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)



34 525 37
DISTANCE FROM ROAD

ENTER FT or MI 7 1
38 39

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S 41
DATE ISSUED 6/30/93
970193 Charles E. Smyer
43 48 CO SIGNATURE EXP. DATE
NORTH GRID 630000 EAST GRID 1079000
50 55 57 63

SHOW MAJOR FEATURES OF
BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

- TOWN - CECIL
-
-

WRITE THE BOX NUMBER
FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN
RELATION TO NEARBY TOWNS AND ROADS AND GIVE
DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N
106 GREENBANK COURT
C5621

C 1	1223	SEQUENCE NO. (DENV USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE		THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.	
1 2 3 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)						
ST/CO USE ONLY DATE Received SEP 15 1993		DATE WELL COMPLETED 09/10/93		Depth of Well 22 132 26 (TO NEAREST FOOT)		
		PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-92-0441		COUNTY NUMBER C5621		

OWNER Rhodes, Roxie first name Roxie last name Cow TOWN ELKTON, Md.
STREET OR RFD 103
SUBDIVISION GREEN BANK FARMS SECTION 6 LOT 6

WELL LOG
Not required for driven wells
STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
Red-white clay	0	12	
yellow sand			
clay-gravel	12	56	
Red-white clay	56	106	
Red-white-gravel			
clay	106	127	
yellow-white			
sand	127	132	✓

GROUTING RECORD
WELL HAS BEEN GROUTED
(Circle Appropriate Box)
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 9 NO. OF POUNDS 648
GALLONS OF WATER 125
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 127 ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER
MAIN CASING TYPE
Nominal diameter top (main) casing (nearest inch)
Total depth of main casing (nearest foot)
PL 4 127

OTHER CASING (if used)
diameter inch depth (feet) from to
EACH CASING

SCREEN RECORD
screen type or open hole insert appropriate code below
ST BR HO
STEEL BRASS OPEN HOLE
PL OT
PLASTIC OTHER

DEPTH (nearest ft.)
1 PL 127 132
2 23 24 26 30 32 36
3 38 39 41 45 47 51
SLOT SIZE 20
DIAMETER OF SCREEN 4 (NEAREST INCH)
from 127 to 132

GRAVEL PACK 127 132
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
70 72 74 75 76
TELESCOPE LOG OTHER DATA

C 3
PUMPING TEST
HOURS PUMPED (nearest hour) 6
PUMPING RATE (gal. per min. to nearest gal.) 25
METHOD USED TO MEASURE PUMPING RATE bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 30
WHEN PUMPING 10
TYPE OF PUMP USED (for test)
A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP YES NO
(CIRCLE) (YES or NO)
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY: GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above } LAND SURFACE (nearest foot)
- below }

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 25
DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)
SITE SUPERVISOR (sign of driller or journeyman)

House 40' x 40'

00006

SEQUENCE NO.
(DP USE ONLY)

STATE OF MARYLAND

APPLICATION FOR PERMIT TO DRILL WELL

please print or type

STATE PERMIT NUMBER

CE-92-0414

fill in this form completely

Date Received (APA)

06/09/93

OWNER INFORMATION

Owner

First Name

Last Name

Street or RFD

Town

State

Zip

Driller's Name

Firm Name

Address

Signature

Date

LOCATION OF WELL

8 COUNTY

23 SUBDIVISION

SECTION

LOT

52 NEAREST TOWN

MILES FROM TOWN (enter 0 if in town)

D5199

Green Bank

CHARLESTOWN

1 MI

WELL INFORMATION

APPROX. PUMPING RATE (GAL PER MIN.)

AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)

PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)

TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL

APPROXIMATE DIAMETER OF WELL

NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered)

JETTED

Jettied & DRIVEN

AIR-ROTary

AIR-PERCussion

ROTary (Hydraulic Rotary)

CABLE

REVerse-ROTary

Drive-POINT

other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

THIS WELL WILL NOT REPLACE AN EXISTING WELL

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

THIS WELL WILL DEEPEEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER

FORCE

WRITE INITIALS IN BOX

PERMIT NO.

SPECIAL CONDITIONS

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME

COUNTY NO.

STATE SIGNATURE

DATE ISSUED

CO SIGNATURE

EXP. DATE

NORTH GRID

EAST GRID

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

WRITE THE BOX NUMBER FROM THE MAP HERE

1080

620

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

wood hill rd

Green Bank

Site

ORIGINAL

C17796

SEQUENCE NO.
(DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

D5199

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

CE-92-0414

ST/CO USE ONLY
DATE Received

AUG 16 1993

DATE WELL COMPLETED

072893

Depth of Well

136

(TO NEAREST FOOT)

OWNER

Ritter

last name

first name

TOWN

Charles Town

STREET OR RFD

GREEN BANK RD

SUBDIVISION

GREEN BANK

SECTION

LOT

WELL LOG			
Not required for driven wells			
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING			
DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
Top Soil	0	6	
Sand mix	6	10	
Red Clay	10	90	
Red + White clay	40	60	
White Clay mix	60	90	
med Coarse white Sand	90	100	X
Coarse white Sand	100	136	4

GROUTING RECORD

WELL HAS BEEN GROUTED

(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT

CM

BENTONITE CLAY

BO

NO. OF BAGS

5

NO. OF POUNDS

220

GALLONS OF WATER

100

DEPTH OF GROUT SEAL (to nearest foot)

from

0

ft.

to

70

ft.

(enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

ST

CO

STEEL

CONCRETE

PL

OT

PLASTIC

OTHER

MAIN CASING TYPE

PL

Nominal diameter top (main) casing (nearest inch)

4

Total depth of main casing (nearest foot)

80

OTHER CASING (if used) diameter depth (feet) from to

inch

feet

from

to

SCREEN RECORD

screen type or open hole

insert appropriate code below

ST

BR

HO

STEEL

BRASS

OPEN HOLE

PL

OT

PLASTIC

OTHER

DEPTH (nearest ft.)

1

2

3

4

5

6

7

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CIRCLE APPROPRIATE LETTER

A

A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E

ELECTRIC LOG OBTAINED

P

TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO.

997

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for outwork if different from permittee)

GRAVEL PACK

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

W Q

74

75

76

70

72

TELESCOPE CASING

LOG INDICATOR

OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour)

3

PUMPING RATE (gal. per min. to nearest gal.)

20

METHOD USED TO MEASURE PUMPING RATE

Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING

60

WHEN PUMPING

80

TYPE OF PUMP USED (for test)

A

centrifugal

P

piston

T

turbine

C

rotary

O

other (describe below)

J

jet

S

submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP

YES

NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

above

below

LAND SURFACE (nearest foot)

1

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

House

80

150

1680.61913786320-MSR

EMERGENCY/TEMP NO. IF ANY

1 02113

SEQUENCE NO.
(DP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER

CE-92-0416
70 fill in this form completely 79

THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-8 ON ALL CARDS)

Date Received (APA)

060993

OWNER INFORMATION

GILBERT RICHARD
15 Last Name 34 Owner First Name

297 JACKSON STATION
38 Street or RFD 55

PERRYVILLE MD 21903
57 Town 70 State 72 76

DRILLER INFORMATION

CHARLES HAMILTON JR
Driller's Name 77 License No. 00

James Hamilton
First Name

115 N. PARADISE RD HLG 21078
Address

Charles H. Hamilton Jr 6-8-93
Signature Date

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5

AVERAGE DAILY QUANTITY NEEDED
(GAL. PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY DRIVE-POINT
other

REPLACEMENT OR DEEPEINED WELLS
(CIRCLE APPROPRIATE BOX)

- ☐ N THIS WELL WILL NOT REPLACE AN EXISTING WELL
☒ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ D THIS WELL WILL DEEPEIN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. CE-92-0416

SPECIAL CONDITIONS

LOCATION OF WELL

21 Replacement
8 COUNTY 21

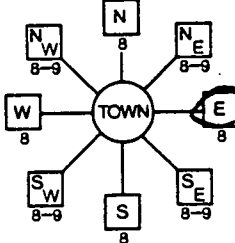
23 SUBDIVISION 42

SECTION 44 48 LOT 48 50

PERRYVILLE 71

52 NEAREST TOWN 73 76 77 78

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Jackson Station Rd.
NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)



34 250 37
DISTANCE FROM ROAD

ENTER FT or MI 57 38 39

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

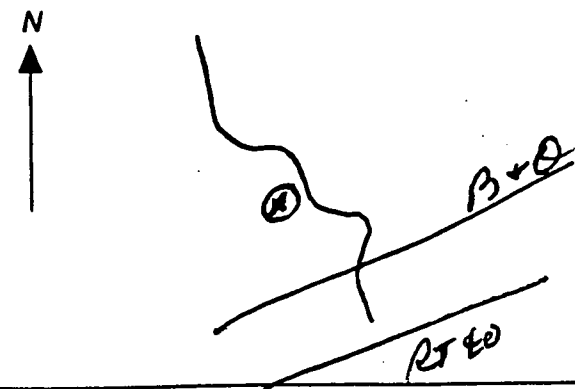
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED 061693
CO SIGNATURE Charles E. Simpson 6/16/93
NORTH GRID 638000 EAST GRID 1070000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER

- 1.
 - 2.
 - 3.
- WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C17798

SEQUENCE NO.
(DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER

Replacement

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

C E - 9 2 - 0 4 1 6

ST/CO USE ONLY
DATE Received

AUG 9 1993

DATE WELL COMPLETED

082693

Depth of Well

2220028

(TO NEAREST FOOT)

OWNER

GILBERT RICHARD

last namefirst name

STREET OR RFD

297 JACKSON STATION Rd.

TOWN

PERRYVILLE, Md. 21903

SUBDIVISION

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use
additional sheets if needed)

FEET

FROM

TO

Check
if water
bearing

YELLOW +
BROWN
SAND +
GRAVEL

0

25

YELLOW
CLAY

25

31

SOFT GREEN
WEATHERED
ROCK

31

38

HARD GREEN
+ GRAY
GRANITE

38

200

GROUTING RECORD

WELL HAS BEEN GROUTED

(Circle Appropriate Box)

YES

NO

TYPE OF GROUTING MATERIAL

CEMENT

CM

BENTONITE CLAY

BC

NO. OF BAGS

11

NO. OF POUNDS

1034

GALLONS OF WATER

66

DEPTH OF GROUT SEAL (to nearest foot)

from

0

ft.

to

40

ft.

(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
below

ST

CO

STEEL

CONCRETE

PL

OT

PLASTIC

OTHER

MAIN
CASING
TYPE

PL

Nominal diameter
top (main) casing
(nearest inch)

6

Total depth
of main casing
(nearest foot)

40

OTHER CASING (if used)

diameter
inch

depth (feet)
from

to

SCREEN RECORD

screen type
or open hole
insert
appropriate
code
below

ST

BR

HO

STEEL

BRASS

OPEN
HOLE

BRONZE

PL

OT

PLASTIC

OTHER

C2

DEPTH (nearest ft.)

1

2

3

4

5

6

7

8

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12

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SLOT SIZE 1 2 3

DIAMETER
OF SCREEN

(NEAREST
INCH)

from

to

GRAVEL PACK

IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68

68

C3

PUMPING TEST

HOURS PUMPED (nearest hour)

3

PUMPING RATE (gal. per min.
to nearest gal.)

8

METHOD USED TO
MEASURE PUMPING RATE

BUCKET + WATER

WATER LEVEL (distance from land surface)

BEFORE PUMPING

41

WHEN PUMPING

165

TYPE OF PUMP USED (for test)

A

air

P

piston

T

turbine

C

centrifugal

R

rotary

O

other
(describe
below)

J

jet

S

submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP

YES

NO

(CIRCLE) (YES or NO)

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE

TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O)
IN BOX - SEE ABOVE:

CAPACITY:
GALLONS PER MINUTE
(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH
(nearest ft.)

CASING HEIGHT (circle appropriate box
and enter casing height)

above

below

LAND SURFACE

(nearest
foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND/OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

JACKSON STATION Rd.

HOUSE

SEPTIC
TANK

WELL

CIRCLE APPROPRIATE LETTER

A

A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E

ELECTRIC LOG OBTAINED

P

TEST WELL CONVERTED TO PRODUCTION
WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE-
SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF
MY KNOWLEDGE.

DRILLER'S IDENT. NO.

112

DRILLER'S SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman)

TELESCOPE

LOG

CASING

INDICATOR

W O

74

75

76

OTHER DATA

2094 SEQUENCE NO. (DP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER
CE-92-0334

1 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

Date Received (APA)
042293

OWNER INFORMATION
Last Name: **GROBS** Owner: **BARBARA** First Name: **WILLIAM**
Street or RFD: **DEVONSHIRE RD**
Town: **WILMINGTON** Zip: **DE19803**

DRILLER INFORMATION
Driller's Name: **DONALD S. NEUMAN** 77 License No. **80**
Firm Name: **Shore Well Drillers**
Address: **Cecilton, Md. 21913**
Signature: **Donald S. Neuman** Date: **4/24/93**

WELL INFORMATION
APPROX. PUMPING RATE (GAL PER MIN.) **10**
AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) **1500**

USE FOR WATER (CIRCLE APPROPRIATE BOX)
☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL **150** FEET
APPROXIMATE DIAMETER OF WELL **4** INCH

METHOD OF DRILLING (circle one)
☒ BORED (or Augered) ☒ JETTED ☒ Jetted & DRIVEN
☐ AIR-ROTARY ☐ AIR-PERCussion ☐ ROTARY (Hydraulic Rotary)
☐ CABLE ☐ REVerse-ROTary ☐ Drive-POINT
other _____

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEM AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) _____

Not to be filled in by driller (OEP USE ONLY)
APPROX. PERMIT NUMBER **GAP**
FORCE **100** WRITE INITIALS IN BOX PERMIT No. **CE-92-0334**
SPECIAL CONDITIONS

LOCATION OF WELL
COUNTY **CECIL**
SUBDIVISION **GREENBANK**
SECTION **44** LOT **48**
NEAREST TOWN **CHARLESTOWN**
MILES FROM TOWN (enter 0 if in town) **2** MI

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
NORTH
NORTH
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
NEAR WHAT ROAD **64 Woodall Rd.**
DISTANCE FROM ROAD **200** ENTER FT or MI **FT**

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
Cecil
COUNTY NAME _____ COUNTY NO. _____
STATE SIGNATURE _____ INSERT S _____
DATE ISSUED **042393** CO SIGNATURE **Chas E. Surgen** EXP. DATE **04/23/94**
NORTH GRID **630000** EAST GRID **1079000**

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. **Town - Cecilton**
2. _____
3. _____
WRITE THE BOX NUMBER FROM THE MAP HERE
1030
630
DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION.
64 Woodall Rd.
Woodall Rd
Chas Rd

C18241

SEQUENCE NO.
(DENY USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBERGreenbank

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
CE-92-0334

ST/CO USE ONLY
DATE Received
JUN 8 1983

DATE WELL COMPLETED
052093

Depth of Well
2215726
(TO NEAREST FOOT)

OWNERGross, Barbara

STREET OR RFD131last nameDevonshire Rd

first nameTOWNHilmington, Dela.

SUBDIVISIONGREEN BANKSECTIONLOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use
additional sheets if needed)

FEET
FROMTO

Check
if water
bearing

Top soil01

yellow clay18

white clay-sand852

GRAVEL52146

Red-white clay146151

white sand146151

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENTCMBENTONITE CLAYBC

NO. OF BAGS10NO. OF POUNDS800

GALLONS OF WATER225

DEPTH OF GROUT SEAL (to nearest foot)

from0ft. to146ft.

CASING RECORD

casing
types
insert
appropriate
code
below

STEELCONCRETE
PLASTICOTHER

MAIN
CASING
TYPE

Nominal diameter
top (main) casing
(nearest inch)

Total depth
of main casing
(nearest foot)

PL4147

OTHER CASING (if used)

diameter
inch

depth (feet)
fromto

PUMPING TEST

HOURS PUMPED (nearest hour)6

PUMPING RATE (gal. per min.
to nearest gal.)15

METHOD USED TO
MEASURE PUMPING RATEbucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING52

WHEN PUMPING80

TYPE OF PUMP USED (for test)

AairPpistonTturbine

CcentrifugalRrotaryOother (describe below)

JjetSsubmersible

SCREEN RECORD

screen type
or open hole

insert
appropriate
code
below

STEELBRBRONZE
PLASTICOTHER

DEPTH (nearest ft.)

PL147151

SLOT SIZE20

DIAMETER
OF SCREEN4

GRAVEL PACK146151

IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68

PUMP INSTALLED

DRILLER WILL INSTALL PUMPYESNO

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE

TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O)
IN BOX - SEE ABOVE:

CAPACITY:
GALLONS PER MINUTE

PUMP HORSE POWER

PUMP COLUMN LENGTH
(nearest ft.)

CASING HEIGHT (circle appropriate box
and enter casing height)

abovebelow

LAND SURFACE1

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE-
SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF
MY KNOWLEDGE.

DRILLERS IDENT. NO.138

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

TELESCOPE

LOG

OTHER DATA

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND/OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)

House

<p>B 1</p> <p style="font-size: 24pt; font-weight: bold;">2093</p> <p>SEQUENCE NO. (DP USE ONLY)</p>	<p>STATE OF MARYLAND</p> <p>APPLICATION FOR PERMIT TO DRILL WELL</p> <p>please print or type</p>	<p>STATE PERMIT NUMBER</p> <p style="border: 1px solid black; padding: 2px;">C E - 9 2 - 0 3 2 8</p> <p><small>70 fill in this form completely 79</small></p>
<p><small>(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)</small></p>		
<p>Date Received (APA) <div style="border: 1px solid black; padding: 2px;">04/19/93</div> </p>		
<p>OWNER INFORMATION</p> <p>15 Last Name <u>MORRISON</u> Owner <u>PHILIP</u> First Name <u>P</u> 34</p> <p>36 <u>1307 Aiken Ave Ext</u> 55</p> <p>57 <u>Perryville</u> Town <u>MD</u> 70 State <u>72</u> Zip <u>78</u></p>		
<p>DRILLER INFORMATION</p> <p>Driller's Name <u>Donald S. Newman</u> 77 License No. <u>138</u> 80</p> <p>Firm Name <u>Shore Well Drillers</u></p> <p>Address <u>Cecilton, Md. 21913</u></p> <p>Signature <u>Donald S. Newman</u> Date <u>4/19/93</u></p>		
<p>WELL INFORMATION</p> <p>APPROX. PUMPING RATE (GAL PER MIN.) <u>10</u> 8 12</p> <p>AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) <u>1600</u> 14 20</p>		
<p>USE FOR WATER (CIRCLE APPROPRIATE BOX)</p> <p><input checked="" type="checkbox"/> D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)</p> <p><input type="checkbox"/> F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)</p> <p><input type="checkbox"/> I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)</p> <p><input type="checkbox"/> P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)</p> <p><input type="checkbox"/> T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)</p>		
<p>APPROXIMATE DEPTH OF WELL <u>150</u> 24 28 FEET</p> <p>APPROXIMATE DIAMETER OF WELL <u>4</u> NEAREST INCH</p>		
<p>METHOD OF DRILLING (circle one)</p> <p><u>BORED</u> (or Augered) <u>JETTED</u> <u>Jetted & DRIVEN</u></p> <p>30 <u>AIR-ROtary</u> AIR-PERcussion ROTARY (Hydraulic Rotary)</p> <p>37 <u>CABLE</u> REVerse-ROtary DRive-POINT</p> <p>other _____</p>		
<p>REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)</p> <p><input checked="" type="checkbox"/> N THIS WELL WILL NOT REPLACE AN EXISTING WELL</p> <p><input type="checkbox"/> Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED</p> <p><input type="checkbox"/> S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY</p> <p><input type="checkbox"/> D THIS WELL WILL DEEPEIN AN EXISTING WELL</p> <p>PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) <u>41</u> <u>52</u></p>		
<p>Not to be filled in by driller (OEP USE ONLY)</p> <p>APPROP. PERMIT NUMBER <u>54</u> <u>G A P</u> 63</p> <p>FORCE <u>67</u> <u>68</u> WRITE INITIALS IN BOX PERMIT No. <u>C E - 9 2 - 0 3 2 8</u> 70 71 72 73 74 75 76 77 78 79</p> <p>SPECIAL CONDITIONS</p>		
<p>B 3</p> <p>LOCATION OF WELL D5096</p> <p>8 COUNTY <u>Cecil</u> 21</p> <p>23 SUBDIVISION <u>GREENBANK FARMS 2</u> 42</p> <p>SECTION <u>7</u> LOT <u>7</u> 50</p> <p>52 NEAREST TOWN <u>PERRYVILLE</u> 71</p> <p>MILES FROM TOWN (enter 0 if in town) <u>0.1</u> 73 76 77 78</p>		<p>B 4</p> <p>1 2</p> <p>DIRECTION OF WELL FROM TOWN (CIRCLE BOX)</p> <p>ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)</p> <p>39 GREENBANK COURT 11 30</p> <p>NEAR WHAT ROAD</p> <p>ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)</p> <p>34 <u>30</u> 37</p> <p>DISTANCE FROM ROAD</p> <p>ENTER FT or MI <u>PA</u> 38 39</p>
<p>NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL</p> <p>Cecil</p> <p>COUNTY NAME _____ COUNTY NO. _____</p> <p>STATE SIGNATURE _____ INSERT S 41</p> <p>DATE ISSUED <u>04/22/93</u> 43 48 CO SIGNATURE <u>Charles E. Smyer</u> EXP. DATE <u>4/22</u></p> <p>NORTH GRID <u>630000</u> 50 55 EAST GRID <u>1079000</u> 57 63</p>		<p>SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X</p> <p>SOURCES OF DRILLING WATER</p> <p>1. <u>TOWN - Cecilton</u></p> <p>2. _____</p> <p>3. _____</p> <p>WRITE THE BOX NUMBER FROM THE MAP HERE</p> <p>E <u>1070</u> N <u>630</u> 000 000</p> <p>DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION</p> <p>N <u>39 Greenbank Court</u></p> <p><u>GREENBANK FARMS 2</u></p> <p><u>D5096</u></p>

C18234

SEQUENCE NO.
(DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER D5096

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
Q E - 9 2 - 0 3 2 8

ST/CO USE ONLY
DATE Received
JUN 8 1993

DATE WELL COMPLETED
051993

Depth of Well
2211828
(TO NEAREST FOOT)

OWNER Morrison Philip
STREET OR RFD 1307 last name A. KEN AVE. EXT. first name TOWN PERRYVILLE, MD.
SUBDIVISION GREEN BANK FARMS 2 SECTION LOT 7

WELL LOG
Not required for driven wells
STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
Red-white CLAY	0	8	
White sand. CLAY GRAVEL	8	46	
White clay-sand	46	57	
Red-white clay	57	62	
White clay-sand	62	102	
COARSE WHITE SAND	102	118	

GROUTING RECORD
WELL HAS BEEN GROUTED
(Circle Appropriate Box)
TYPE OF GROUTING MATERIAL
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 7 NO. OF POUNDS 560
GALLONS OF WATER 125
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 105 ft.
TOP BOTTOM
(enter 0 if from surface)

CASING RECORD
casing
types
insert
appropriate
code
below
ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER
MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)
PK 4 118
60 61 63 64 66 67 70

OTHER CASING (if used)
diameter inch depth (feet) from to
EACH CASING

SCREEN RECORD
screen type or open hole
insert appropriate code below
ST BR HO
STEEL BRASS OPEN HOLE
PL BRONZE PLASTIC OTHER
C2

DEPTH (nearest ft.)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
SLOT SIZE 20 2 3
DIAMETER OF SCREEN 4 (NEAREST INCH)
from 105 to 118

GRAVEL PACK
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
70 72 74 75 76
TELESCOPE CASING LOG INDICATOR OTHER DATA

C3
PUMPING TEST
HOURS PUMPED (nearest hour) 6
PUMPING RATE (gal. per min. to nearest gal.) 30
METHOD USED TO MEASURE PUMPING RATE bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 40
WHEN PUMPING 80
TYPE OF PUMP USED (for test)
A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

PUMP INSTALLED
DRILLER WILL INSTALL PUMP YES NO
(CIRCLE) (YES or NO)
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:
CAPACITY:
GALLONS PER MINUTE (to nearest gallon)
PUMP HORSE POWER
PUMP COLUMN LENGTH (nearest ft.)
CASING HEIGHT (circle appropriate box and enter casing height)
+ above
- below
LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)
N
Handwritten notes: "House", "X well"

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.
DRILLERS IDENT. NO. 138
DRILLERS SIGNATURE Daniel S. Turney
(MUST MATCH SIGNATURE ON APPLICATION)
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

102941

SEQUENCE NO.
(DP USE ONLY)STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER

CE-92-0322

fill in this form completely

Date Received (APA)

09/16/93

merita Jones

OWNER INFORMATION

HOLMAN Winder

51 GREENBANK COURT

Perryville 21903

DRILLER INFORMATION

Timothy J Seward 927

RT Seward And Son

158 Blackbird St. Rd Townsend Pa 17234

Timothy J Seward 9/14/93

WELL INFORMATION

APPROX. PUMPING RATE (GAL PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- ☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- ☐ F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- ☐ I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
- ☐ P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
- ☐ T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 180 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)

CABLE REVERSE-ROTary Drive-POINT

other

REPLACEMENT OR DEEPEMED WELLS

(CIRCLE APPROPRIATE BOX)

- ☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL
- ☐ Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- ☐ S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
- ☐ D THIS WELL WILL DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER 54 GAP 63

FORCE 67 68 WRITE INITIALS IN BOX PERMIT No. CE-92-0322 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

B 3

LOCATION OF WELL

CECIL D5171

GREENBANK FARMS

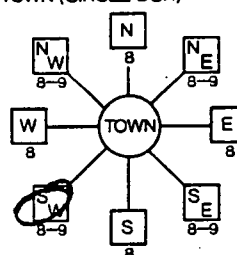
SECTION 44 48 LOT 9 48 50 D-5171

CECIL TOWN 52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 0.1 MI 73 76 77 78

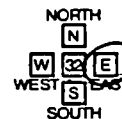
B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



GREENBANK COURT. 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



34 50 37 DISTANCE FROM ROAD

ENTER FT. or MI 17 38 39

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S 41

DATE ISSUED 041993 Charles E. Seward 4/19/94

NORTH GRID 629000 50 55 EAST GRID 1079000 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. UCHART OFFICE

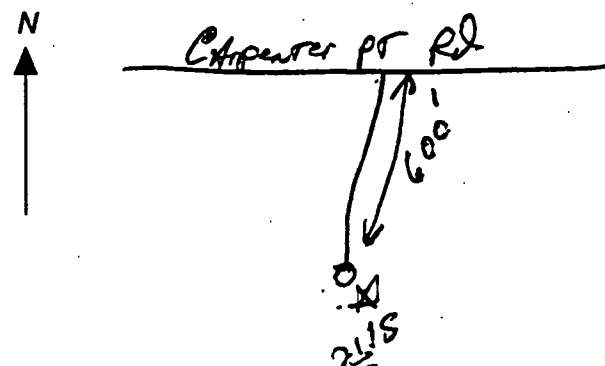
2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 620000
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



C 1	8229	SEQUENCE NO. (DENV USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE		THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.	
1 2 3 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)				COUNTY NUMBER	D5171	
ST/CO USE ONLY DATE Received AUG 16 1993		DATE WELL COMPLETED 07 20 93		Depth of Well 22 150 26 (TO NEAREST FOOT)		PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-92-0322

OWNER	Holman	last name	first name	TOWN	Parisville md
STREET OR RFD	57 Greenbank CT.				
SUBDIVISION	Green Bank Palms SECTION			LOT	S

WELL LOG		
Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET FROM TO	Check if water bearing
Topsoil	0 6	
Clay	6 31	
Sand Clay mix	31 18	
Silty Sand Clay mix	18 26	
Coarse sand	26 36	
Coarse sand gravel	36 48	
Red Clay	48 60	
Yellow white Clay	60 80	
Silty sand	80 100	
Fine sand	100 130	
Coarse sand	130 150	

GROUTING RECORD	
WELL HAS BEEN GROUTED (Circle Appropriate Box)	
TYPE OF GROUTING MATERIAL	
CEMENT <input checked="" type="checkbox"/> CM	BENTONITE CLAY <input checked="" type="checkbox"/> BC
NO. OF BAGS 5	NO. OF POUNDS 250
GALLONS OF WATER 125	
DEPTH OF GROUT SEAL (to nearest foot)	
from 0 ft.	to 50 ft.

CASING RECORD		
casing types insert appropriate code below	ST CO STEEL CONCRETE	
	PL OT PLASTIC OTHER	
MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	09	140

EACH CASING	OTHER CASING (if used)	
	diameter inch	depth (feet) from to

SCREEN RECORD	
screen type or open hole insert appropriate code below	ST BR HO STEEL BRASS OPEN HOLE
	PL OT PLASTIC OTHER

C 2	
EACH SCREEN	DEPTH (nearest ft.)
	1 PL 140 150
	2
	3
SLOT SIZE 20 2 3	
DIAMETER OF SCREEN 4 (NEAREST INCH)	
from 140 to 150	

GRAVEL PACK 140 150	
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68	

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)	
T (E.R.O.S.)	W Q
70	74 75 78
72	
TELESCOPE CASING	LOG INDICATOR
OTHER DATA	

C 3		
PUMPING TEST		
HOURS PUMPED (nearest hour) 2		
PUMPING RATE (gal. per min. to nearest gal.) 20		
METHOD USED TO MEASURE PUMPING RATE Bucket		
WATER LEVEL (distance from land surface)		
BEFORE PUMPING 80	WHEN PUMPING 120	
TYPE OF PUMP USED (for test)		
<input checked="" type="checkbox"/> Air	<input type="checkbox"/> piston	<input type="checkbox"/> turbine
<input type="checkbox"/> centrifugal	<input type="checkbox"/> rotary	<input type="checkbox"/> other (describe below)
<input type="checkbox"/> jet	<input type="checkbox"/> submersible	

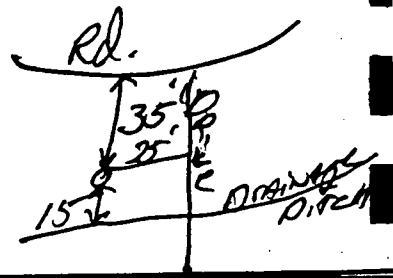
PUMP INSTALLED	
DRILLER WILL INSTALL PUMP YES NO	
(CIRCLE) (YES OR NO)	
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE	
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:	
CAPACITY: GALLONS PER MINUTE (to nearest gallon)	
PUMP HORSE POWER	
PUMP COLUMN LENGTH (nearest ft.)	
CASING HEIGHT (circle appropriate box and enter casing height)	
<input checked="" type="checkbox"/> above	LAND SURFACE
<input type="checkbox"/> below	1 (nearest foot)

LOCATION OF WELL ON LOT	
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)	

CIRCLE APPROPRIATE LETTER	
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED	
E ELECTRIC LOG OBTAINED	
<input checked="" type="checkbox"/> TEST WELL CONVERTED TO PRODUCTION WELL	
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE- SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.	

DRILLERS IDENT. NO.	097
DRILLERS SIGNATURE	
(MUST MATCH SIGNATURE ON APPLICATION)	

SITE SUPERVISOR (sign. of driller or journeyman contractor, if different from permittee)	
---	--



MAY 20 1993

Use with CE-92-0320

WELL ABANDONMENT REPORT

Date 4-27-93

Permit Number of Abandoned Well (If any) N/A

Driller's Name Chester LAKE
Last First

Owner's Name CONRAD THOMAS
Last First

Well Location:

County Cecil
Subdivision GREEN BANK
Section 121 Lot 108
Nearest Town CHARLES TOWN
Maryland Grid Location

Box Number E 1080
N 630

	0/5
X	0/0

Show well location by within box

Type of Well

- (☒) Drilled
() Jetted
() Bored or Augered
() Other, specify

Depth of Well 40 Feet

Type of Casing

- (☒) Steel
() Plastic
() Concrete
() Other, Specify

Size of Casing 6 Inches

Was any case removed () Yes (☒) No
If yes amount removed Feet

Was casing ripped or perforated
() Yes (☒) No

Driller [Signature]
(Signature)

License # 225

Log of Sealing Material

Material	Feet	
	From	To
Bentonite Clay	3	40
Cement Plug	3	2

C1	8227	SEQUENCE NO. (DENV USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE		THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.	
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)			COUNTY NUMBER		Replacement	
ST/CO USE ONLY DATE Received		DATE WELL COMPLETED		PERMIT NO. FROM "PERMIT TO DRILL WELL"		
MAY 17 1993		042293		CE-92-032C		
8		15		28		

OWNER	CONRAD Thomas	first name	Thomas	TOWN	
STREET OR RFD	108 Wood All Rd.				
SUBDIVISION	GREEN BANK	SECTION		LOT	108

WELL LOG Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET FROM TO	Check if water bearing
Top So: l	0 6	
Sand m: f	6 5	
Yellow CLAY	5 30	
Red CLAY	30 80	
Red + white CLAY	80 110	
White CLAY	110 130	
med. Fine white Sand	130 140	K

GROUTING RECORD	
WELL HAS BEEN GROUTED (Circle Appropriate Box)	
TYPE OF GROUTING MATERIAL	
CEMENT <input checked="" type="checkbox"/> CM	BENTONITE CLAY <input checked="" type="checkbox"/> BC
NO. OF BAGS 5	NO. OF POUNDS 250
GALLONS OF WATER 125	
DEPTH OF GROUT SEAL (to nearest foot)	
from 0 ft.	to 70 ft.
(enter 0 if from surface)	

CASING RECORD		
casing types insert appropriate code below	ST CO STEEL CONCRETE	
	PL OT PLASTIC OTHER	
MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PK	4	130
OTHER CASING (if used)		
diameter inch	depth (feet) from to	

SCREEN RECORD	
screen type or open hole	ST BR HO STEEL BRASS OPEN BRONZE HOLE PL OT PLASTIC OTHER
insert appropriate code below	
DEPTH (nearest ft.)	
1 PK 130 140	
2	
3	
SLOT SIZE 20 2 3	
DIAMETER OF SCREEN 4 (NEAREST INCH)	
from 130 to 140	

GRAVEL PACK	
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68	
OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)	
T	(E.R.O.S.)
70	72
TELESCOPE CASING	
LOG INDICATOR	
OTHER DATA	

PUMPING TEST		
HOURS PUMPED (nearest hour) 3		
PUMPING RATE (gal. per min. to nearest gal.) 10		
METHOD USED TO MEASURE PUMPING RATE Bucket		
WATER LEVEL (distance from land surface)		
BEFORE PUMPING	55	
WHEN PUMPING	100	
TYPE OF PUMP USED (for test)		
<input checked="" type="checkbox"/> A air	<input type="checkbox"/> P piston	<input type="checkbox"/> T turbine
<input type="checkbox"/> C centrifugal	<input type="checkbox"/> R rotary	<input type="checkbox"/> O other (describe below)
<input type="checkbox"/> J jet	<input type="checkbox"/> S submersible	

PUMP INSTALLED	
DRILLER WILL INSTALL PUMP YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE	
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:	
CAPACITY: GALLONS PER MINUTE (to nearest gallon)	31 35
PUMP HORSE POWER	37 41
PUMP COLUMN LENGTH (nearest ft.)	43 47
CASING HEIGHT (circle appropriate box and enter casing height)	
<input checked="" type="checkbox"/> + above	LAND SURFACE
<input type="checkbox"/> - below	11 (nearest foot)

LOCATION OF WELL ON LOT	
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)	
old well House	
new well	
wood All Road	

CIRCLE APPROPRIATE LETTER	
<input checked="" type="radio"/> A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED	
<input type="radio"/> E ELECTRIC LOG OBTAINED	
<input type="radio"/> P TEST WELL CONVERTED TO PRODUCTION WELL	
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE- SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.	
DRILLERS IDENT. NO. 427	
DRILLERS SIGNATURE	
(MUST MATCH SIGNATURE ON APPLICATION)	
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)	

B 1 02924	SEQUENCE NO. (DP USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER CE-92-0320 <small>fill in this form completely</small>
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THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

Date Received (APA) 09/13/93

OWNER INFORMATION

15 Last Name 091393 Owner THOMAS First Name 34
 36 108 WOODALL RD Street or RFD 55
 57 PERRYVILLE Town 70 State 72 Md 21703 Zip 78

DRILLER INFORMATION

Driller's Name Timothy J Seward 77 License No. 80 822
 Firm Name R.J. Seward and Son
 Address 58 BLACKBIRD ST. Rd Towson, Md. 19134
 Signature Timothy J Seward Date 3/29/93

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10
 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 190 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
 AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
 CABLE REVERSE-ROTARY Drive-POINT
 other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL
☒ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
☐ THIS WELL WILL DEEPEMED AN EXISTING WELL
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) CE-73-2584

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER GAP
 FORCE INITIALS IN BOX PERMIT No. CE-92-0320
 SPECIAL CONDITIONS

LOCATION OF WELL

8 COUNTY Cecil
 23 SUBDIVISION GREENOAK
 SECTION 44 48 LOT 48 50 108 woodall rd
 52 NEAREST TOWN CHARLESTOWN
 MILES FROM TOWN (enter 0 if in town) 1 MI

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

W N NW NE E SE S SW 8-9 8-9 8-9 8-9

NEAR WHAT ROAD WOODALL Rd.
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
 NORTH N
 WEST W
 SOUTH S
 EAST E
 DISTANCE FROM ROAD 20 ENTER FT or MI RT

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil
 COUNTY NAME COUNTY NO.
 STATE SIGNATURE INSERT S
 DATE ISSUED 041693 Charles E. Seward 4/16/94
 NORTH GRID 630000 EAST GRID 1080000
 50 55 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
 1. WCK AT OFFICE.
 2.
 3.
 WRITE THE BOX NUMBER FROM THE MAP HERE
 1080
 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N
 300'
 WOODALL RD
 CLARK

MAY 20 1993

Use with CE-92-0290

WELL ABANDONMENT REPORT

DEPT. OF THE ENVIRONMENT
AND NATURAL RESOURCES

MAY 18 1993

Date 4-25-93

Permit Number of Abandoned Well (If any) No TAG

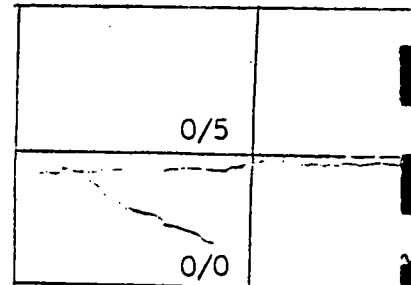
Driller's Name Chester Larry
Last First

Owner's Name Rider Ronald
Last First

Well Location:

County Cecil
Subdivision GREEN BANK
Section CHURCH RD. Lot 46
Nearest Town CHARLES TOWN
Maryland Grid Location

Box Number E 1070
N 630



Show well location by
within box

Type of Well

- (☒) Drilled
() Jetted
() Bored or Augered
() Other, specify

Depth of Well 95 Feet

Type of Casing

- (☒) Steel
() Plastic
() Concrete
() Other, Specify

Size of Casing 6 Inches

Was any case removed () Yes (☒) No
If Yes amount removed ___ Feet

Was casing ripped or perforated
() Yes (☒) No

Driller [Signature]
(Signature)

License # 235

Log of Sealing Material

Material	Feet	
	From	To
Bentonite Clay	3 -	95
Cement Plug	3 -	2

CO USE ONLY
DATE Received
MAY 17 1993

DATE WELL COMPLETED
052593

Depth of Well
22 198 28
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
CE-92-0290

CORNER Rider Ronald
STREET OR RFD 111 name Creek Rd first name
SUBDIVISION GREEN BAY SECTION LOT 46

WELL LOG			
Not required for driven wells			
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING			
DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
Play	0	5	
Clay with	5	20	
Red Clay	20	70	
Red & White Clay	70	120	
White Clay	120	160	
Red Coarse Sand.	160	178	✓

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 5 NO. OF POUNDS 250

GALLONS OF WATER 125

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 70 ft.

CASING RECORD

types insert appropriate code below

STEEL ST CONCRETE CO

PLASTIC PL OTHER OT

MAIN CASING TYPE

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

PL 4 168

OTHER CASING (if used)

diameter inch

depth (feet) from to

SCREEN RECORD

screen type or open hole

insert appropriate code below

STEEL ST BRASS BR OPEN HOLE HO

BRONZE PL HOLE OT

PLASTIC PL OTHER OT

DEPTH (nearest ft.)

PL 168 178

EACH SCREEN

1 2 3

23 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52

SLOT SIZE 20

DIAMETER OF SCREEN 4 (NEAREST INCH)

from 168 to 178

PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 15

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 415

WHEN PUMPING 108

TYPE OF PUMP USED (for test)

A air P piston T turbine

C centrifugal R rotary O other (describe below)

J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)

IN BOX - SEE ABOVE:

CAPACITY:

GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above - below

LAND SURFACE 1 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

Well House

Well 35

Well 25

Creek Rd.

CIRCLE APPROPRIATE LETTER

A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427

DRILLERS SIGNATURE Timothy O. Saur

MUST MATCH SIGNATURE ON APPLICATION

SITE SUPERVISOR (sign. of driller or journeyman)

GRAVEL PACK 168 178

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.)

70 72

W Q

74 75 78

TELESCOPE CASING

LOG INDICATOR

OTHER DATA A

B 1	7688	SEQUENCE NO. (DP USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER CE-92-0290 <small>fill in this form completely</small>
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Date Received (APA)
03/16/93

OWNER INFORMATION

15 Last Name: Rider 13
Owner First Name: RONALD 34
36 Street or RFD: 3009 OCTAGON 55
57 SPRING 70 State 72 PA Zip 76 19608

DRILLER INFORMATION

Driller's Name: Robert Seward 77 License No. 80 383

Firm Name: RT Seward and Son

Address: 158 Blackbird St. Rittenburg, Pa

Signature: [Signature] Date: 3/8/93

WELL INFORMATION

APPROX. PUMPING RATE (GAL PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)

☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)

☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 180 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

☒ BORED (or Augered) ☐ JETTED ☐ Jetted & DRIVEN

☐ AIR-ROTARY ☐ AIR-PERCussion ☒ ROTARY (Hydraulic Rotary)

☐ CABLE ☐ REVerse-ROTary ☐ Drive-POINT

other _____

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

☐ THIS WELL WILL NOT REPLACE AN EXISTING WELL

☒ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

☐ THIS WELL WILL DEEPEM AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 CE-73-0669 52

Not to be filled in by driller (OEP USE ONLY)

APPROP. PERMIT NUMBER 54 GAP 63

FORCE 67 68 WRITE INITIALS IN BOX PERMIT No. CE-92-0290 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

LOCATION OF WELL

8 COUNTY: CECIL 21
23 SUBDIVISION: GREEN BANK 42
SECTION: 44 46 LOT: 48 50 46 CHARLES
52 NEAREST TOWN: CHARLESTOWN 71
MILES FROM TOWN (enter 0 if in town) 2 73 78 77 78

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

☒ N ☐ NE ☐ E ☐ SE ☐ S ☐ SW ☐ W

NEAR WHAT ROAD
CLARK RD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
☒ WEST ☐ EAST

DISTANCE FROM ROAD
63 37
ENTER FT or MI FT 38 39

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME: _____ COUNTY NO. _____

STATE: _____ INSERT S _____

DATE ISSUED: 3/24/94 43

CO SIGNATURE: Charles E. Smyer 48 EXP. DATE: 3/24/94

NORTH GRID: 630000 50 55 EAST GRID: 1079000 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. well at office

2. _____

3. _____

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1070
N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

Sketch showing location of well in relation to nearby towns and roads. Includes labels like 'Chapin', '1800', '3192', 'road all the way'.

01/17/93 #83659-MER

EMERGENCY/TEMP NO. IF ANY

<p>7676</p> <p>SEQUENCE NO. (DP USE ONLY)</p>	<p>STATE OF MARYLAND</p> <p>APPLICATION FOR PERMIT TO DRILL WELL</p> <p>please print or type</p>	<p>STATE PERMIT NUMBER</p> <p>CE-92-0188</p> <p><small>70 fill in this form completely 79</small></p>
<p><small>(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)</small></p>		
<p>OWNER INFORMATION</p> <p>Date Received (APA) 010793</p> <p>BAY COUNTY ASSOCIATE</p> <p>216 E. POIASKI</p> <p>ETATON</p> <p>MD 21921</p>		<p>LOCATION OF WELL</p> <p>D4662</p> <p>GREENBANK</p> <p>CHARLES TOWN</p> <p>02 MI</p>
<p>DRILLER INFORMATION</p> <p>Timothy J. Seward</p> <p>RT Seward and Son</p> <p>158 BIAKHEV ST. Rd Townsend Re 19734</p> <p>Timothy J. Seward 12/23/92</p>		<p>DIRECTION OF WELL FROM TOWN (CIRCLE BOX)</p> <p>WOODALL RD.</p> <p>ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)</p> <p>150</p> <p>DISTANCE FROM ROAD</p> <p>ENTER FT or MI</p>
<p>WELL INFORMATION</p> <p>APPROX. PUMPING RATE (GAL PER MIN.) 40</p> <p>AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) 1000</p> <p>USE FOR WATER (CIRCLE APPROPRIATE BOX)</p> <p>D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)</p> <p>F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)</p> <p>I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)</p> <p>P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)</p> <p>T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)</p>		<p>NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL</p> <p>Cecil</p> <p>COUNTY NAME _____ COUNTY NO. _____</p> <p>STATE SIGNATURE _____ INSERT S _____</p> <p>DATE ISSUED 010893 Charles E. Senger 1/8/94</p> <p>NORTH GRID 630000 EAST GRID 1080000</p>
<p>APPROXIMATE DEPTH OF WELL 140 FEET</p> <p>APPROXIMATE DIAMETER OF WELL 4 INCH</p> <p>METHOD OF DRILLING (circle one)</p> <p>BORED (or Augered) JETTED Jettied & DRIVEN</p> <p>AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)</p> <p>CABLE REverse-ROTary Drive-POINT</p>		<p>SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X</p> <p>SOURCES OF DRILLING WATER</p> <p>1. WELL AT OFFICE</p> <p>2.</p> <p>3.</p> <p>WRITE THE BOX NUMBER FROM THE MAP HERE</p> <p>E 1080</p> <p>N 630</p> <p>DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION</p>
<p>REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)</p> <p>N THIS WELL WILL NOT REPLACE AN EXISTING WELL</p> <p>Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED</p> <p>S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY</p> <p>D THIS WELL WILL DEEPEMED AN EXISTING WELL</p> <p>PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41</p> <p>Not to be filled in by driller (OEP USE ONLY)</p> <p>APPROX. PERMIT NUMBER GAP</p> <p>FORCE WRITE INITIALS IN BOX PERMIT No. CE-92-0188</p>		<p>SPECIAL CONDITIONS</p>

C1	3121	SEQUENCE NO. (DENV USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE		THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.		
					COUNTY NUMBER	D4662	
1 2 3 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		DATE WELL COMPLETED 01/21/93		Depth of Well 22 166 26 (TO NEAREST FOOT)		PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-92-018	
ST/CO USE ONLY DATE Received MAR 2 1993							

OWNER	Bay Country Associate	last name	first name	TOWN	Charles town
STREET OR RFD	Wood All Rd				
SUBDIVISION	Green Bank	SECTION	LOT		

WELL LOG		
Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET FROM TO	Check if water bearing
Top Soil	0 6	
Clay mix	6 8	
Sand Gravel	8 20	
Sand + White Clay	20 80	
Red + Grey Clay	80 120	
White Clay	120 140	
Clay mix	140 156	
med fine white Sand	156 166	Y

GROUTING RECORD	
WELL HAS BEEN GROUTED (Circle Appropriate Box)	
TYPE OF GROUTING MATERIAL	
CEMENT <input checked="" type="checkbox"/> CM	BENTONITE CLAY <input checked="" type="checkbox"/> BC
NO. OF BAGS 6	NO. OF POUNDS 300
GALLONS OF WATER 150	
DEPTH OF GROUT SEAL (to nearest foot)	
from 0 ft.	to 80 ft.
(Enter 0 if from surface)	

CASING RECORD		
casing types insert appropriate code below	ST CO STEEL CONCRETE	
	PL OT PLASTIC OTHER	
MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL	4	156
OTHER CASING (if used)		
	diameter inch	depth (feet) from to

SCREEN RECORD	
screen type or open hole insert appropriate code below	ST BR HO STEEL BRASS OPEN HOLE
	PL OT PLASTIC OTHER
DEPTH (nearest ft.)	
1 2	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
2 3	22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
SLOT SIZE 20 2 3	
DIAMETER OF SCREEN 4 (NEAREST INCH)	
from 156 to 166	

GRAVEL PACK	
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68	
OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)	
T	(E.R.O.S.)
70	72
TELESCOPE CASING	
LOG INDICATOR	
W Q 74 75 76	
OTHER DATA	

PUMPING TEST		
HOURS PUMPED (nearest hour) 3		
PUMPING RATE (gal. per min. to nearest gal.) 15		
METHOD USED TO MEASURE PUMPING RATE Bucket		
WATER LEVEL (distance from land surface)		
BEFORE PUMPING	65	
WHEN PUMPING	140	
TYPE OF PUMP USED (for test)		
<input checked="" type="checkbox"/> A air	<input type="checkbox"/> P piston	<input type="checkbox"/> T turbine
<input type="checkbox"/> C centrifugal	<input type="checkbox"/> R rotary	<input type="checkbox"/> O other (describe below)
<input type="checkbox"/> J jet	<input type="checkbox"/> S submersible	

PUMP INSTALLED	
DRILLER WILL INSTALL PUMP YES <input checked="" type="checkbox"/> NO	
(CIRCLE) (YES or NO)	
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE	
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:	
CAPACITY: GALLONS PER MINUTE (to nearest gallon)	
PUMP HORSE POWER	
PUMP COLUMN LENGTH (nearest ft.)	
CASING HEIGHT (circle appropriate box and enter casing height)	
<input checked="" type="checkbox"/> + above	LAND SURFACE
<input type="checkbox"/> - below	(nearest foot)

CIRCLE APPROPRIATE LETTER	
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED	
E ELECTRIC LOG OBTAINED	
<input checked="" type="checkbox"/> TEST WELL CONVERTED TO PRODUCTION WELL	
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE- SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.	
DRILLERS IDENT. NO. 427	
DRILLERS SIGNATURE	
(MUST MATCH SIGNATURE ON APPLICATION)	
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)	

LOCATION OF WELL ON LOT	
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)	
Property line	
well	
31'	
House	

17546

SEQUENCE NO.
(DP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER
CE-88-2600

Date Received (APA)
073092

OWNER INFORMATION
CRAFT HAUCH INC.
Last Name Owner First Name
900 CARPENTER PT RD
Perryville Md 21903
Town 70 State 72 Zip 76

B 3 LOCATION OF WELL
PNC
8 COUNTY 21
23 SUBDIVISION 42
SECTION 44 46 LOT 48 50
CHARLES TOWN
52 NEAREST TOWN 71
MILES FROM TOWN (enter 0 if in town) 2 MI
73 76 77 78

DRILLER INFORMATION
Timothy J Seward
Driller's Name 77 License No. 80
C Seward and son
Firm Name
58 Blackbird St. P.O. Townsend De. 1904
Address
Timothy J. Seward 7-13-92
Signature Date

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
N W N E
8-9 8-9
W TOWN E
8 8
S W S E
8-9 8-9
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
NORTH N
WEST W EAST E
SOUTH S
34 200 37
DISTANCE FROM ROAD
ENTER FT or MI FT
38 39

WELL INFORMATION
APPROX. PUMPING RATE (GAL PER MIN.) 20
8 12
AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) 7500
14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)
D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
U INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
Cecil
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED 073092 Charles E. Smyer 1/30/93
43 48 CO SIGNATURE EXP. DATE
NORTH GRID 627000 EAST GRID 1080000
50 55 57 63

APPROXIMATE DEPTH OF WELL 100 FEET
24 28
APPROXIMATE DIAMETER OF WELL 4" INCH
NEAREST INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
30 AIR-ROTary AIR-PERcussion 37 ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRIVE-POINT
other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
N THIS WELL WILL NOT REPLACE AN EXISTING WELL
Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
39 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
D THIS WELL WILL DEEPEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 None 52

Not to be filled in by driller (OEP USE ONLY)
APPROP. PERMIT NUMBER CE69GAP004
54 63
FORCE CS WRITE INITIALS IN BOX PERMIT No. CE-88-2600603
67 68 70 71 72 73 74 75 76 77 78 79

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. Well #1000
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 1080
N 620
000 000
DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION
N
Carpenter Pt Rd
200
SITE X
Camp Ground
Entrance
INTERIM PERMIT
This permit good until Public Water service is available, at which time the current owner must accept such service.

C1 1639 SEQUENCE NO. (DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY Repl.Craft Haven PNC
NUMBER

1 2 3
THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY
DATE Received

OCT 7 1992

DATE WELL COMPLETED

082792

Depth of Well

22 77 26
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"

CE-88-2606
28 29 30 31 32 33 34 35 36 3

OWNER Craft Haven Inc last name first name TOWN Charlestown
STREET OR RFD 900 Rappahannock Rd
SUBDIVISION Craft Haven SECTION LOT 54

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use
additional sheets if needed) FEET
FROM TO Check
if water
bearing

Top Soil.	0	6	
Sand-Clay	6	10	
Red Clay	10	30	
Red+White Clay	30	45	
GRAY Clay	45	60	
White Clay	60	67	
med Fine white sand.	67	77	x

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 4 NO. OF POUNDS 200

GALLONS OF WATER 100
DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 67 ft.
(enter 0 if from surface)

CASING RECORD
casing
types
insert
appropriate
code
below
ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)
PL 4 67

OTHER CASING (if used)
diameter inch depth (feet) from to
EACH CASING

SCREEN RECORD
screen type or open hole
insert appropriate code below
ST BR HO
STEEL BRASS OPEN HOLE
PL BRONZE HO
PLASTIC OTHER

C2
DEPTH (nearest ft.)
EACH SCREEN
1 PL 67 77
2
3
SLOT SIZE 20
DIAMETER OF SCREEN 4 (NEAREST INCH)
from 67 to 77

GRAVEL PACK 67 77
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
T (E.R.O.S.) W Q
70 72 74 75 76
TELESCOPE CASING LOG INDICATOR OTHER DATA

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 10

METHOD USED TO MEASURE PUMPING RATE Buckets

WATER LEVEL (distance from land surface)

BEFORE PUMPING 45

WHEN PUMPING 70

TYPE OF PUMP USED (for test)

A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

(CIRCLE) (YES or NO)
IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)
IN BOX - SEE ABOVE:

CAPACITY:
GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

above below LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

MAN ROAD

70'

well

35'

Drill well

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE-
SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF
MY KNOWLEDGE.

DRILLERS IDENT. NO. 4270

DRILLERS SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

2440.5/8/92#78686-M2R

EMERGENCY/TEMP NO. IF ANY

B 1 <div style="font-size: 2em; font-weight: bold; margin: 5px;">6339</div> <div style="font-size: 0.8em;">SEQUENCE NO. (DP USE ONLY)</div> <div style="font-size: 0.7em;">(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)</div>		STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type		STATE PERMIT NUMBER <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">CE-88-2440</div> <div style="font-size: 0.7em;">fill in this form completely</div>	
Date Received (APA) <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">050892</div> <div style="font-size: 0.7em;">(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)</div>		B 3 LOCATION OF WELL <div style="font-size: 0.8em;">8 COUNTY</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">CECIL</div> <div style="font-size: 0.7em;">21 D3247</div> <div style="font-size: 0.8em;">23 SUBDIVISION</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">GREENBARK FARMS</div> <div style="font-size: 0.7em;">42</div> <div style="font-size: 0.8em;">SECTION</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">12</div> <div style="font-size: 0.7em;">44 46 46 50</div> <div style="font-size: 0.8em;">LOT</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">D3247</div> <div style="font-size: 0.8em;">52 NEAREST TOWN</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">CHARLESTOWN</div> <div style="font-size: 0.7em;">71</div> <div style="font-size: 0.8em;">MILES FROM TOWN (enter 0 if in town)</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">2 MI</div> <div style="font-size: 0.7em;">73 78 77 78</div>			
OWNER INFORMATION <div style="font-size: 0.8em;">15 Last Name</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">BEAMAN</div> <div style="font-size: 0.8em;">Owner</div> <div style="font-size: 0.8em;">34 First Name</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">ROBERT</div> <div style="font-size: 0.8em;">36 Street or RFD</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">619 091C ST</div> <div style="font-size: 0.8em;">55</div> <div style="font-size: 0.8em;">57 Town</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">CHARLESTOWN</div> <div style="font-size: 0.8em;">70 State</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">MD</div> <div style="font-size: 0.8em;">72</div> <div style="font-size: 0.8em;">Zip</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">21915</div> <div style="font-size: 0.8em;">78</div>		DRILLER INFORMATION <div style="font-size: 0.8em;">Driller's Name</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">Timothy J. Seward</div> <div style="font-size: 0.8em;">77 License No. 80</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">427</div> <div style="font-size: 0.8em;">Firm Name</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">R. Seward and Son</div> <div style="font-size: 0.8em;">Address</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">58 Blackbird St. Rd. Pwysend Rd. Pw.</div> <div style="font-size: 0.8em;">Signature</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">Timothy J. Seward</div> <div style="font-size: 0.8em;">Date</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">5/1/72</div>			
WELL INFORMATION <div style="font-size: 0.8em;">2 APPROX. PUMPING RATE (GAL. PER MIN.)</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">10</div> <div style="font-size: 0.7em;">8 12</div> <div style="font-size: 0.8em;">AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">1000</div> <div style="font-size: 0.7em;">14 20</div>		B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX) <div style="text-align: center;"><div style="display: inline-block; text-align: center;">N 8 NW 8-9 W 8 SW 8-9 S 8 SE 8-9 E 8</div><div style="display: inline-block; text-align: center;">TOWN</div></div> <div style="font-size: 0.8em;">ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)</div> <div style="display: flex; justify-content: space-around; align-items: center;"><div style="text-align: center;">N WEST S EAST SOUTH</div><div style="text-align: center;">N 32 E S EAST SOUTH</div></div> <div style="font-size: 0.8em;">34 DISTANCE FROM ROAD</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">300</div> <div style="font-size: 0.7em;">37</div> <div style="font-size: 0.8em;">ENTER FT or MI</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">FT</div> <div style="font-size: 0.7em;">36 39</div>			
USE FOR WATER (CIRCLE APPROPRIATE BOX) <div style="font-size: 0.8em;">D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)</div> <div style="font-size: 0.8em;">F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)</div> <div style="font-size: 0.8em;">I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)</div> <div style="font-size: 0.8em;">P PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)</div> <div style="font-size: 0.8em;">T TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)</div>		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL <div style="font-size: 0.8em;">Cecil</div> <div style="font-size: 0.8em;">COUNTY NAME</div> <div style="font-size: 0.8em;">COUNTY NO.</div> <div style="font-size: 0.8em;">STATE SIGNATURE</div> <div style="font-size: 0.8em;">DATE ISSUED</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">051192</div> <div style="font-size: 0.8em;">43</div> <div style="font-size: 0.8em;">CO SIGNATURE</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">Charles E. Seward</div> <div style="font-size: 0.8em;">EXP. DATE</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">11/1/75</div> <div style="font-size: 0.8em;">41</div> <div style="font-size: 0.8em;">NORTH GRID</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">629000</div> <div style="font-size: 0.7em;">50 55</div> <div style="font-size: 0.8em;">EAST GRID</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">1078000</div> <div style="font-size: 0.7em;">57 63</div>			
<div style="font-size: 0.8em;">APPROXIMATE DEPTH OF WELL</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">146</div> <div style="font-size: 0.7em;">24 28</div> <div style="font-size: 0.8em;">FEET</div> <div style="font-size: 0.8em;">APPROXIMATE DIAMETER OF WELL</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">4</div> <div style="font-size: 0.7em;">NEAREST INCH</div>		SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X <div style="font-size: 0.8em;">SOURCES OF DRILLING WATER</div> <div style="font-size: 0.8em;">1. well at OFFICE.</div> <div style="font-size: 0.8em;">2.</div> <div style="font-size: 0.8em;">3.</div> <div style="font-size: 0.8em;">WRITE THE BOX NUMBER FROM THE MAP HERE</div> <div style="display: flex; align-items: center; justify-content: center;"><div style="border: 1px solid black; padding: 5px; margin: 0 10px;">E 1070 N 620</div><div style="font-size: 0.7em;">000 000</div></div> <div style="font-size: 0.8em;">DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION</div> <div style="text-align: center; margin-top: 20px;"><div style="display: inline-block; text-align: center;">N ↑</div><div style="display: inline-block; text-align: center; vertical-align: middle;"><div style="transform: rotate(-45deg);">Mantoloking Mill Rd.</div><div style="transform: rotate(-45deg);">Carpenter Rd.</div><div style="transform: rotate(-45deg);">Green Bank Ct.</div></div><div style="display: inline-block; text-align: center; vertical-align: middle;">Site</div></div>			
METHOD OF DRILLING (circle one) <div style="font-size: 0.8em;">BORED (or Augered) JETTED Jetted & DRIVEN</div> <div style="font-size: 0.8em;">30 AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)</div> <div style="font-size: 0.8em;">37 CABLE REVerse-ROTARY Drive-POINT</div> <div style="font-size: 0.8em;">other</div>		REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX) <div style="font-size: 0.8em;">N THIS WELL WILL NOT REPLACE AN EXISTING WELL</div> <div style="font-size: 0.8em;">Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED</div> <div style="font-size: 0.8em;">39 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY</div> <div style="font-size: 0.8em;">D THIS WELL WILL DEEPEN AN EXISTING WELL</div> <div style="font-size: 0.8em;">PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">41</div> <div style="font-size: 0.7em;">52</div>			
Not to be filled in by driller (OEP USE ONLY)					
<div style="font-size: 0.8em;">APPROP. PERMIT NUMBER</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">GAP</div> <div style="font-size: 0.7em;">54 63</div> <div style="font-size: 0.8em;">FORCE</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">CE-88-2440</div> <div style="font-size: 0.7em;">67 68</div> <div style="font-size: 0.8em;">WRITE INITIALS IN BOX</div> <div style="font-size: 0.8em;">PERMIT No.</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 1.2em;">CE-88-2440</div> <div style="font-size: 0.7em;">70 71 72 73 74 75 76 77 78 79</div> <div style="font-size: 0.8em;">SPECIAL CONDITIONS</div>					

C1	1294	SEQUENCE NO. (DENV USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE		THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.	
1 2 3 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		COUNTY NUMBER D3247				
ST/CO USE ONLY DATE Received JUL 15 1992		DATE WELL COMPLETED 051292		PERMIT NO. FROM "PERMIT TO DRILL WELL" CE-88-2440		

OWNER <u>Beaman Robert</u>	last name	first name <u>Richardson B.W.</u>	TOWN <u>Charles Town</u>
STREET OR RFD		SUBDIVISION <u>GREEN BANK FARMS</u> SECTION <u>LOT 12</u>	

WELL LOG Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET FROM TO	Check if water bearing
CLAY + FILL	0 8'	
Yellow CLAY	8' 15'	
Red CLAY	15' 40'	
Red + White CLAY	40' 80'	
GRAY CLAY	80' 100'	
White CLAY	100' 116'	
med Fine white Sand.	116' 126'	X

GROUTING RECORD	
WELL HAS BEEN GROUTED (Circle Appropriate Box)	
YES <input checked="" type="radio"/> Y	NO <input type="radio"/> N
TYPE OF GROUTING MATERIAL	
CEMENT <input checked="" type="radio"/> CM	BENTONITE CLAY <input checked="" type="radio"/> BC
NO. OF BAGS <u>3</u>	NO. OF POUNDS <u>150</u>
GALLONS OF WATER <u>75</u>	
DEPTH OF GROUT SEAL (to nearest foot)	
from <input type="radio"/> 48	ft. to <input type="radio"/> 58

CASING RECORD		
casing types insert appropriate code below	<input checked="" type="radio"/> ST <input checked="" type="radio"/> CO	
	STEEL CONCRETE	
	<input checked="" type="radio"/> PL <input type="radio"/> OT	
	PLASTIC OTHER	
MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
<input checked="" type="radio"/> PL	<u>4</u>	<u>116</u>

E A C H C A S I N G	OTHER CASING (if used)	
	diameter inch	depth (feet) from to
	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>

screen type or open hole insert appropriate code below	<input checked="" type="radio"/> ST	<input checked="" type="radio"/> BR	<input checked="" type="radio"/> HO
	STEEL	BRASS	OPEN HOLE
	<input checked="" type="radio"/> PL	<input type="radio"/> OT	
	PLASTIC	OTHER	

C2 1 2 E A C H S C R E E N	SCREEN RECORD	
	DEPTH (nearest ft.)	
	<input checked="" type="radio"/> PL	<u>116</u> <u>126</u>
	<input type="radio"/> 23	<input type="radio"/> 36

SLOT SIZE <u>20</u>	
DIAMETER OF SCREEN <u>4</u> (NEAREST INCH)	
GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68	

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)	
T	(E.R.O.S.)
70 <input type="checkbox"/>	72 <input type="checkbox"/>
TELESCOPE CASING	
LOG INDICATOR	
OTHER DATA	

C3 1 2	PUMPING TEST	
	HOURS PUMPED (nearest hour)	<u>3</u>
	PUMPING RATE (gal. per min. to nearest gal.)	<u>10</u>
	METHOD USED TO MEASURE PUMPING RATE	<u>Bucket</u>
WATER LEVEL (distance from land surface)		
BEFORE PUMPING <u>65</u>		
WHEN PUMPING <u>105</u>		
TYPE OF PUMP USED (for test)		
<input checked="" type="radio"/> A	<input type="radio"/> P	<input type="radio"/> T
air	piston	turbine
<input checked="" type="radio"/> C	<input type="radio"/> R	<input type="radio"/> O
centrifugal	rotary	other (describe below)
<input type="radio"/> J	<input type="radio"/> S	
jet	submersible	

PUMP INSTALLED	
DRILLER WILL INSTALL PUMP YES <input checked="" type="radio"/> NO	
(CIRCLE) (YES or NO)	
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE	
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O)	
IN BOX - SEE ABOVE:	
CAPACITY:	
GALLONS PER MINUTE (to nearest gallon)	<u>31</u> <u>35</u>
PUMP HORSE POWER	<u>37</u> <u>41</u>
PUMP COLUMN LENGTH (nearest ft.)	<u>43</u> <u>47</u>
CASING HEIGHT (circle appropriate box and enter casing height)	
<input checked="" type="radio"/> above	LAND SURFACE
<input type="radio"/> below	<u>1</u> (nearest foot)

LOCATION OF WELL ON LOT	
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)	
<u>Proper hole</u>	
<u>20'</u>	
<u>35'</u>	
House	

CIRCLE APPROPRIATE LETTER	
A	A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E	ELECTRIC LOG OBTAINED
<input checked="" type="radio"/> P	TEST WELL CONVERTED TO PRODUCTION WELL
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE- SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.	
DRILLERS IDENT. NO. <u>727</u>	
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)	
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)	

C1293

SEQUENCE NO.
(DENV USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY
NUMBER D3305

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
CE-88-2439

DATE WELL COMPLETED
080597

Depth of Well
2212426
(TO NEAREST FOOT)

OWNER Rodgers
STREET OR RFD Green Bank Rd
SUBDIVISION Green Bank Farms

last name first name TOWN Charles Town
SECTION LOT 2

WELL LOG			
Not required for driven wells			
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING			
DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
Top Soil	0	6	
Sand mix	6	15	
Red Clay	15	60	
Red & White Clay	60	90	
white Clay	90	117	
med Fine white Sand	117	127	X

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 4 NO. OF POUNDS 200

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 60 ft.

CASING RECORD

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN CASING TYPE

Nominal diameter top (main) casing (nearest inch)

Total depth of main casing (nearest foot)

PL 4 117

OTHER CASING (if used)

diameter inch depth (feet) from to

SCREEN RECORD

screen type or open hole

ST BR HO
STEEL BRASS OPEN HOLE
BRONZE
PL OT
PLASTIC OTHER

DEPTH (nearest ft.)

PL 117 127

SLOT SIZE 20

DIAMETER OF SCREEN 4 (NEAREST INCH)

from 117 to 127

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 10

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 80

WHEN PUMPING 110

TYPE OF PUMP USED (for test)

A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

+ above - below LAND SURFACE 1 (nearest foot)

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 421

DRILLERS SIGNATURE [Signature]

MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for site work if different from permittee)

GRAVEL PACK 117 to 127

IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

70 72 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

LOCATION OF WELL ON LOT

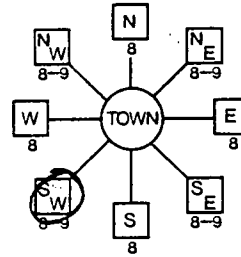

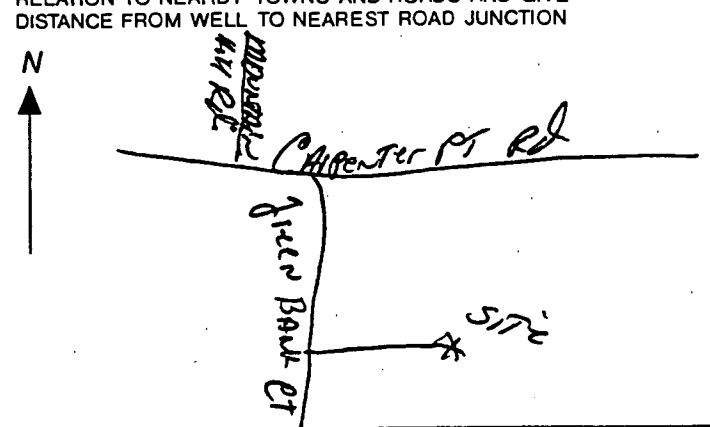
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

Howe

45' to well

460'

CHARLES TOWN

B 1 <div style="border: 1px solid black; padding: 2px; font-size: 24px; font-weight: bold;">3440</div>	SEQUENCE NO. (DP USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">C E - 8 8 - 2 4 3 9</div> <small>70 fill in this form completely 79</small>
Date Received (APA) <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">0 5 0 8 9 2</div>		B 3 LOCATION OF WELL	
OWNER INFORMATION <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">Rogers</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">Tan</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">13 13/0UNT RD</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">Newcastl</div>		<div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">C E 7 K</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">6100 BANK FARMS</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">SECTION 5 LOT 5</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">O 3 3 0 5</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">O H A T T Y S T O W N</div>	
DRILLER INFORMATION <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">Timothy J Seward</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">RT Seward and son</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">158 Blackbird St Rd Townsend De 19734</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">Timothy J. Seward</div> <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">5/2/92</div>		52 NEAREST TOWN MILES FROM TOWN (enter 0 if in town) <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">2</div> M I	
WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.) <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">1 0</div> AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">1 0 0 0</div>		B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX) 	
USE FOR WATER (CIRCLE APPROPRIATE BOX) <input checked="" type="checkbox"/> HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY) <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT) <input type="checkbox"/> PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL) <input type="checkbox"/> TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)		ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) 	
APPROXIMATE DEPTH OF WELL <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">140</div> FEET APPROXIMATE DIAMETER OF WELL <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">4</div> INCH		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Cecil COUNTY NAME _____ COUNTY NO. _____ STATE SIGNATURE _____ INSERT S _____ DATE ISSUED <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">0 5 1 1 9 2</div> Charles E. Smyer 11/1 NORTH GRID <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">6 2 9 0 0 0</div> EAST GRID <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">1 0 7 8 0 0 0</div>	
METHOD OF DRILLING (circle one) BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary DRIVE-POINT other _____		SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X SOURCES OF DRILLING WATER 1. WELL OFFICE 2. 3. WRITE THE BOX NUMBER FROM THE MAP HERE <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">E 1070 N 620</div>	
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX) <input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY <input type="checkbox"/> THIS WELL WILL DEEPEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">41</div> 52		DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION 	
Not to be filled in by driller (OEP USE ONLY) APPROP. PERMIT NUMBER <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">G A P</div> FORCE <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">87 68</div> WRITE INITIALS IN BOX PERMIT No. <div style="border: 1px solid black; padding: 2px; font-family: monospace; font-size: 18px;">C E - 8 8 - 2 4 3 9</div>			
SPECIAL CONDITIONS			

C1 1220 SEQUENCE NO. (DENV USE ONLY)
THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.

COUNTY 8145-67
NUMBER Repl. Cistern

ST/CO USE ONLY

DATE Received

AR 10 1993

DATE WELL COMPLETED

09/17/92

Depth of Well

22 129 26

(TO NEAREST FOOT)

PERMIT NO.

FROM "PERMIT TO DRILL WELL

CE-88-2367

28 29 30 31 32 33 34 35 36 37

OWNER G. Ford RALPH - Debra
STREET OR RFD 7727 Green SF INTERSTATE first name TOWN PA
SUBDIVISION Green bank SECTION LOT 132 woodland

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
TOP SOIL	0	6	
CLAY SILT	6	2	
SAND GRAVEL	2	40	
Red CLAY	40	80	
Fine Sand	80	100	
GRAY CLAY SAND	100	120	
STRINGS			
POSSIBLE SAND	120	129	

GROUTING RECORD

WELL HAS BEEN GROUTED

(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 4 NO. OF POUNDS 200

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 40 ft.
48 TOP 52 (enter 0 if from surface) 54 BOTTOM 58

CASING RECORD

casing
types
insert
appropriate
code
below

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHER

MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)
PZ 4 119 70

OTHER CASING (if used)

diameter depth (feet)
inch from to

screen type or open hole
insert appropriate code below

ST BR HO
STEEL BRASS OPEN
PL BRONZE HOLE
PLASTIC OTHER

C2

DEPTH (nearest ft.)
1 PL 119 129
8 9 11 15 17 21
2 23 24 26 30 32 36
3 38 39 41 45 47 51

SLOT SIZE 1 20 2 3
DIAMETER OF SCREEN 4 (NEAREST INCH)

GRAVEL PACK 119 129
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q
74 75 76
70 72
TELESCOPE LOG OTHER DATA
CASING INDICATOR

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min. to nearest gal.) 20

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 40 20

WHEN PUMPING 90 25

TYPE OF PUMP USED (for test)

A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE
TYPE OF PUMP INSTALLED
PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE: 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

above 49 below 49
LAND SURFACE 1 (nearest foot) 50 51

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

CIRCLE APPROPRIATE LETTER
A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
D TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427
DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

ORIGINAL

8 570, 516192" / 1271-M7K

B 1		SEQUENCE NO. (DP USE ONLY)		STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type		STATE PERMIT NUMBER	
6343						CE-88-2367	
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)				fill in this form completely			
Date Received (APA) 717-768-8733				LOCATION OF WELL 8145-67			
030692				Repl. Cistern			
OWNER INFORMATION							
GLEFORD RA/PH-0601A				8 COUNTY 21			
15 Last Name Owner First Name 34				23 SUBDIVISION			
27 EVERGREEN ST				137 woodall Rd.			
37 Street or RFD 55				SECTION 44 46 LOT 48 50			
INTERPOVALC PA/7539				CHAR/CSTOWN			
57 Town 70 State 72 Zip 76				52 NEAREST TOWN 71			
DRILLER INFORMATION				MILES FROM TOWN (enter 0 if in town)			
Timothy J Seward				3 73 78 77 78			
Driller's Name 77 License No. 80							
RT Seward And Son							
Firm Name							
158 Blackbird ST. Rd Townsend DE 17334							
Address							
Timothy J Seward							
Signature				Date			
B 2 WELL INFORMATION				DIRECTION OF WELL FROM TOWN (CIRCLE BOX)			
APPROX. PUMPING RATE (GAL. PER MIN.) 10				NORTH			
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000				ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)			
14 20				34 37 DISTANCE FROM ROAD ENTER FT or MI FT			
USE FOR WATER (CIRCLE APPROPRIATE BOX)				NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL			
<input checked="" type="radio"/> HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)				Cecil			
<input type="radio"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)				COUNTY NAME COUNTY NO.			
<input type="radio"/> INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)				STATE SIGNATURE INSERT S			
<input type="radio"/> PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)				DATE ISSUED			
<input type="radio"/> TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)				040292 Charles E. Senger 10/2/92			
APPROXIMATE DEPTH OF WELL 140 FEET				43 NORTH GRID 629000 EAST GRID 1080000			
APPROXIMATE DIAMETER OF WELL 4" INCH				50 55 57 63			
METHOD OF DRILLING (circle one)				SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X			
BORED (or Augered) JETTED Jetted & DRIVEN				SOURCES OF DRILLING WATER			
30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)				1. well at office			
37 CABLE REVERSE-ROTary Drive-POINT				2.			
other				3.			
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)				WRITE THE BOX NUMBER FROM THE MAP HERE			
<input checked="" type="radio"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL				E 1080			
<input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED				N 620			
<input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY				000 000			
<input type="radio"/> THIS WELL WILL DEEPEN AN EXISTING WELL				DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION			
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52				N			
Not to be filled in by driller (OEP USE ONLY)				woodall Rd			
APPROP. PERMIT NUMBER 54 GAP 63				* site			
FORCE 67 68 WRITE INITIALS IN BOX PERMIT No. CE-88-2367 70 71 72 73 74 75 76 77 78 79				300			
				green BARK RD			

ORIGINAL

12379

SEQUENCE NO.
(DP USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type

STATE PERMIT NUMBER
CE-88-2359
fill in this form completely

Date Received (APA) 03/23/92 #77884-MSK

032392 OWNER INFORMATION
JACKSON JAMES
WEAVER RANDY
592 MT HILL RD
PERRYVILLE MD 21903

DRILLER INFORMATION
CHARLES H. HAMILTON
JONES & HAMILTON
1506 N. PARADISE RD.
Charles H. Hamilton

LOCATION OF WELL
CECIL
PERRYVILLE
MILES FROM TOWN (enter 0 if in town) 1 MI

MT. HILL
NEAR WHAT ROAD
ON WHICH SIDE OF ROAD
DISTANCE FROM ROAD 80 FT

WELL INFORMATION
APPROX. PUMPING RATE (GAL PER MIN.) 10
AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)
HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)
PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)
TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET
APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jettied & DRIVEN
AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVERSE-ROTARY DRIVE-POINT
other

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)
THIS WELL WILL NOT REPLACE AN EXISTING WELL
THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY
THIS WELL WILL DEEPEIN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)
APPROX. PERMIT NUMBER GAP
FORCE PERMIT No. CE-88-2359

SPECIAL CONDITIONS

Cecil
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED 032692 Charles E. Smyer 9/26/92
NORTH GRID 634000 EAST GRID 1075000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
WRITE THE BOX NUMBER FROM THE MAP HERE
1070
630
DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION
N
MD Rt 7
P.R.
FR
well site

ORIGINAL

C1 1212 SEQUENCE NO. (DENY USE ONLY)

1 2 3
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE PRINT OR TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.COUNTY
NUMBER D3155ST/CO USE ONLY
DATE Received

MAY x 4 1992

DATE WELL COMPLETED

050192

Depth of Well

22 600 26
(TO NEAREST FOOT)PERMIT NO.
FROM "PERMIT TO DRILL WELL"

C 8-88-235

OWNER JACKSON JAMES
STREET OR RFD last name 592 MT Hill Rd first name TOWN PERRYVILLE, Md. 21903
SUBDIVISION SECTION LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS
PENETRATED, THEIR COLOR, DEPTH,
THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)BROWN
SAND +
GRAVEL

0 50

YELLOW CLAY

50 85

SOFT GREEN
WEATHERED
ROCK

85 105

HARD GREEN
+ GRAY
GRANITE

105 600 ✓

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 28 NO. OF POUNDS 2632

GALLONS OF WATER 140

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 110 ft.
(enter 0 if from surface)casing
types
insert
appropriate
code
below

CASING RECORD

ST CO
STEEL CONCRETE
PL OT
PLASTIC OTHERMAIN
CASING
TYPENominal diameter
top (main) casing
(nearest inch)Total depth
of main casing
(nearest foot)

ST

6

110

EACH
CASING

OTHER CASING (if used)

diameter
inch from toscreen type
or open hole
insert
appropriate
code
below

SCREEN RECORD

ST BR HO
STEEL BRASS OPEN
BRONZE HOLE
PL OT
PLASTIC OTHER

C2

EACH
SCREEN

DEPTH (nearest ft.)

1 HO 110 600
2
3

SLOT SIZE 1 2 3

DIAMETER
OF SCREEN (NEAREST
INCH)

from to

GRAVEL PACK
IF WELL DRILLED WAS
FLOWING WELL INSERT
F IN BOX 68OEP USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

W Q

70

72

74 75 76

TELESCOPE
CASINGLOG
INDICATOR

OTHER DATA

C3

1 2

PUMPING TEST

HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min. to nearest gal.)

METHOD USED TO MEASURE PUMPING RATE Bucket + Watch

WATER LEVEL (distance from land surface)

BEFORE PUMPING 95

WHEN PUMPING 470

TYPE OF PUMP USED (for test)

A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

PUMP INSTALLED

DRILLER WILL INSTALL PUMP YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION
MUST BE COMPLETED FOR ALL WELLS
EXCEPT HOME USE

TYPE OF PUMP INSTALLED

PLACE (A,C,J,P,R,S,T,O)

IN BOX - SEE ABOVE:

CAPACITY:

GALLONS PER MINUTE

(to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH
(nearest ft.)CASING HEIGHT (circle appropriate box
and enter casing height)+ above
- below LAND SURFACE (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS
BUILDING, SEPTIC TANKS, AND/OR
LANDMARKS AND INDICATE NOT LESS
THAN TWO DISTANCES
(MEASUREMENTS TO WELL)MT. Hill Rd.
WELL 32'
House
60'
SEWER SYSTEM

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION"
AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE
ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRE-
SENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF
MY KNOWLEDGE.

DRILLERS IDENT. NO. 112

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)

1 2922 <small>(THIS NUMBER IS TO BE PUNCHED COLS. 3-6 ON ALL CARDS)</small>	SEQUENCE NO. (DENV USE ONLY)	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
		COUNTY NUMBER	D2888

DATE RECEIVED MAR 4 1993	DATE WELL COMPLETED 010992	Depth of Well 22 171 28 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" CB-88-220
-----------------------------	-------------------------------	---	--

OWNER SETTLEMAYR last name CLARK first name Donald TOWN Perryville
 STREET OR RFD 24 CLARK RD.
 SUBDIVISION GREEN BANK SECTION LOT

WELL LOG		
Not required for driven wells		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (Use additional sheets if needed)	FEET	Check if water bearing
	FROM	TO
TOP SOIL	0	6"
CLAY SILT	6"	3'
Hard gravel	3'	18'
CLAY mix	18	40
Red CLAY	40	50
SILTY SAND	50	80
moist clay	80	100
CLAY	100	120
Fine sand	120	140
gray CLAY	140	160
Stringers	160	171
gray CLAY	171	
Fine sand		
Med-Coarse		
SAND		

GROUTING RECORD	
WELL HAS BEEN GROUTED (Circle Appropriate Box) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
TYPE OF GROUTING MATERIAL	
CEMENT <input checked="" type="checkbox"/> CM	BENTONITE CLAY <input checked="" type="checkbox"/> BC
NO. OF BAGS <u>5</u>	NO. OF POUNDS <u>25</u>
GALLONS OF WATER <u>125</u>	
DEPTH OF GROUT SEAL (to nearest foot)	
from <u>9</u> ft.	to <u>6</u> ft.
CASING RECORD	
casing types insert appropriate code below <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; text-align: center;"> ST STEEL </div> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; text-align: center;"> CO CONCRETE </div> </div> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; text-align: center;"> PL PLASTIC </div> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; text-align: center;"> OT OTHER </div> </div>	
MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)
<input checked="" type="checkbox"/> PL	<u>9</u>
Total depth of main casing (nearest foot)	<u>161</u>
OTHER CASING (if used)	
diameter inch	depth (feet) from to
<div style="border: 1px solid black; width: 40px; height: 20px;"></div>	<div style="border: 1px solid black; width: 40px; height: 20px;"></div>
SCREEN RECORD	
screen type or open hole	insert appropriate code below
<input checked="" type="checkbox"/> P2	<input checked="" type="checkbox"/> ST STEEL
<input type="checkbox"/> BR BRASS	<input type="checkbox"/> HO OPEN HOLE
<input type="checkbox"/> PL PLASTIC	<input type="checkbox"/> OT OTHER
DEPTH (nearest ft.)	
<u>161</u>	<u>171</u>
SLOT SIZE <u>20</u>	
DIAMETER OF SCREEN (NEAREST INCH)	
<u>56</u>	<u>60</u>
GRAVEL PACK	
IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68	
<input type="checkbox"/>	

PUMPING TEST	
HOURS PUMPED (nearest hour)	<u>3</u>
PUMPING RATE (gal. per min. to nearest gal.)	<u>25</u>
METHOD USED TO MEASURE PUMPING RATE <u>BUCKET</u>	
WATER LEVEL (distance from land surface)	
BEFORE PUMPING	<u>60</u>
WHEN PUMPING	<u>140</u>
TYPE OF PUMP USED (for test)	
<input checked="" type="checkbox"/> A air	<input type="checkbox"/> P piston
<input type="checkbox"/> C centrifugal	<input type="checkbox"/> R rotary
<input type="checkbox"/> J jet	<input type="checkbox"/> S submersible
<input type="checkbox"/> T turbine	<input type="checkbox"/> O other (describe below)

PUMP INSTALLED	
DRILLER WILL INSTALL PUMP YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> (CIRCLE) (YES or NO) IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS EXCEPT HOME USE	
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX - SEE ABOVE:	
CAPACITY: GALLONS PER MINUTE (to nearest gallon)	<u> </u>
PUMP HORSE POWER	<u> </u>
PUMP COLUMN LENGTH (nearest ft.)	<u> </u>
CASING HEIGHT (circle appropriate box and enter casing height)	<u> </u>
<input checked="" type="checkbox"/> + above	<input type="checkbox"/> - below
LAND SURFACE <u>1</u> (nearest foot)	

CIRCLE APPROPRIATE LETTER
 A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
 E ELECTRIC LOG OBTAINED
☒ P TEST WELL CONVERTED TO PRODUCTION WELL
 I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 427
Timothy J. Seward
 DRILLERS SIGNATURE
 (MUST MATCH SIGNATURE ON APPLICATION)

SITE SUPERVISOR (sign. of driller or journeyman)

OEP USE ONLY (NOT TO BE FILLED IN BY DRILLER)
 T (E.R.O.S.) ☐ 70 ☐ 72 ☐ 74 ☐ 75 ☐ 76
 W Q
 TELESCOPE LOG OTHER DATA
 CASING INDICATOR

LOCATION OF WELL ON LOT
 SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

20' CLARK RD
65' DRIVE WAY
10' house

FD-7 70-1219(1) 16005-MJR

B 1		8276		SEQUENCE NO. (DP USE ONLY)		STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please print or type		STATE PERMIT NUMBER C B - 8 8 - 2 2 0 6 fill in this form completely	
1		2		3		4		5	
6		7		8		9		10	
11		12		13		14		15	
16		17		18		19		20	
21		22		23		24		25	
26		27		28		29		30	
31		32		33		34		35	
36		37		38		39		40	
41		42		43		44		45	
46		47		48		49		50	
51		52		53		54		55	
56		57		58		59		60	
61		62		63		64		65	
66		67		68		69		70	
71		72		73		74		75	
76		77		78		79		80	
81		82		83		84		85	
86		87		88		89		90	
91		92		93		94		95	
96		97		98		99		100	

OWNER INFORMATION

Date Received (APA) 120991

Settlemarc Donahoe

79 Clark Rd

Permyville Md 21901

DRILLER INFORMATION

Timothy J Seward

RT Seward and son

158 Blackbird Station Rd Townsend De 19734

Timothy J Seward 12/2/91

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 10

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 1000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

☒ HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

☐ FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

☐ INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)

☐ PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)

☐ TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 160 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

☒ BORED (or Augered) ☐ JETTED ☐ Jetted & DRIVEN

☐ AIR-ROTary ☐ AIR-PERCussion ☒ ROTARY (Hydraulic Rotary)

☐ CABLE ☐ REVerse-ROTary ☐ Drive-POINT

other

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

☒ THIS WELL WILL NOT REPLACE AN EXISTING WELL

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

☐ THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

☐ THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)

APPROX. PERMIT NUMBER GAP

FORCE WRITE INITIALS IN BOX PERMIT No. C B - 8 8 - 2 2 0 6

SPECIAL CONDITIONS

LOCATION OF WELL

8 COUNTY GREENBANK

23 SUBDIVISION 02888

SECTION 44 46 LOT 48 50

CHARLES TOWN

52 NEAREST TOWN

MILES FROM TOWN (enter 0 if in town) 2 MI

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

☒ SW

NEAR WHAT ROAD

CLARK RD.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

☒ WEST

DISTANCE FROM ROAD 20

ENTER FT or MI 177

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Cecil

COUNTY NAME COUNTY NO.

STATE SIGNATURE DATE ISSUED 121291 Charles E. Seward 6/12/91

CO SIGNATURE EXP. DATE

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1.

2.

3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 1080

N 630

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N SITE

CLARK RD

WOODALL RD

ORIGINAL

A-5 LAB ANALYSES



Certificate of Analysis

Thursday, November 29, 2001

Prepared expressly for:

KCE Engineering Inc.
3300 North Ridge Road
Suite 360
Ellicott City, Maryland 21043

Attention: Mr. Vir Kathuria

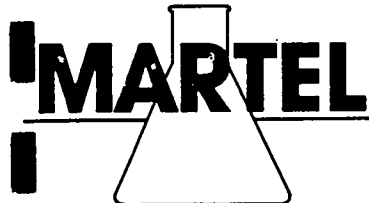
Report for Lab No: 81185.

Samples received by Martel.

P.O. Number: KATHURIA

Project Identification: GW Monitoring, Stancill Quarry, 11/06/01.

MARTEL NO.		CLIENT SAMPLE IDENTIFICATION				Sample Date/Time
81185	000001	P-1				11/06/2001 10:30
Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial	
Methane, dissolved	0.200	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB	
Carbon Dioxide	140	mg/l	SM 4500	1	11/07/2001 15:00 BTA	
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ	
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM	
Nitrate-Nitrite Nitrogen	0.23	mg/l	EPA 353.1	0.05	11/15/2001 23:51 MDS	
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB	
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB	
Chemical Oxygen Demand	230	mg/l	EPA 410.4	20	11/15/2001 11:30 BM	
Phosphorus (total)	0.49	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM	
TOC (Total Organic Carbon)	20	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK	
Sodium	5.8	mg/l	EPA 200.7	0.5	11/14/2001 16:51 DLJ	
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 16:51 DLJ	
Calcium	5.5	mg/l	EPA 200.7	0.5	11/14/2001 16:51 DLJ	
Magnesium	1.3	mg/l	EPA 200.7	0.5	11/14/2001 16:51 DLJ	
Iron	120	mg/l	EPA 200.7	0.01	11/14/2001 16:51 DLJ	
Manganese	0.26	mg/l	EPA 200.7	0.01	11/14/2001 16:51 DLJ	
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB	
Cadmium	0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB	
Chromium	0.090	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB	
Copper	0.020	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB	
Lead	0.027	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB	
Zinc	0.12	mg/l	EPA 200.7	0.01	11/14/2001 16:51 DLJ	
Nickel	0.015	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB	
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB	
Bicarbonates (as CaCO3)	39	mg/l	EPA 310.1	1	11/12/2001 11:20 TB	
Chloride	15	mg/l	EPA 325.2	2	11/12/2001 13:55 BM	
Sulfate	17	mg/l	EPA 375.3	5	11/19/2001 14:47 CBS	
Nitrate Nitrogen	0.2	mg/l	EPA 353.1	0.05	11/15/2001 23:51 CBS	
Nitrite Nitrogen	0.03	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM	
Total Nitrogen	0.23	mg/l	EPA Var	0.05	/ /	
Alkalinity, total (as CaCO3)	39	mg/l	EPA 310.1	1	11/12/2001 11:20 TB	



MARTEL NO.			CLIENT SAMPLE IDENTIFICATION				Sample Date/Time	
81185	000001	P-1					11/06/2001	10:30
Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial			
Solids (Dissolved)	210	mg/l	EPA 160.1	1	11/09/2001 13:07 TB			
Iron (ferrous)	Indeterminate		SM 315B	0.01	11/15/2001 10:00 LB			
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB			

MARTEL NO.			CLIENT SAMPLE IDENTIFICATION				Sample Date/Time	
81185	000002	P-2					11/06/2001	13:35
Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial			
Methane, dissolved	0.0011	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB			
Carbon Dioxide	9	mg/l	SM 4500	1	11/07/2001 15:00 BTA			
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ			
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM			
Nitrate-Nitrite Nitrogen	0.35	mg/l	EPA 353.1	0.05	11/08/2001 00:05 MDS			
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB			
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB			
Chemical Oxygen Demand	21	mg/l	EPA 410.4	20	11/15/2001 11:30 BM			
Phosphorus (total)	0.26	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM			
TOC (Total Organic Carbon)	5.0	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK			
Sodium	13	mg/l	EPA 200.7	0.5	11/14/2001 16:55 DLJ			
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 16:55 DLJ			
Calcium	5.9	mg/l	EPA 200.7	0.5	11/14/2001 16:55 DLJ			
Magnesium	1.9	mg/l	EPA 200.7	0.5	11/14/2001 16:55 DLJ			
Iron	5.7	mg/l	EPA 200.7	0.01	11/14/2001 16:55 DLJ			
Manganese	0.12	mg/l	EPA 200.7	0.01	11/14/2001 16:55 DLJ			
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB			
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB			
Chromium	0.018	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB			
Copper	0.008	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB			
Lead	0.007	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB			
Zinc	0.05	mg/l	EPA 200.7	0.01	11/14/2001 16:55 DLJ			
Nickel	0.007	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB			
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB			
Bicarbonates (as CaCO ₃)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB			
Chloride	13	mg/l	EPA 325.2	2	11/12/2001 13:55 BM			
Sulfate	16	mg/l	EPA 375.3	5	11/19/2001 15:01 CBS			
Nitrate Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/16/2001 00:05 CBS			
Nitrite Nitrogen	0.35	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM			
Total Nitrogen	0.35	mg/l	EPA Var	0.05	/ /			
Alkalinity, total (as CaCO ₃)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB			
Solids (Dissolved)	54	mg/l	EPA 160.1	1	11/09/2001 13:07 TB			
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB			
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB			

MARTEL NO.		CLIENT SAMPLE IDENTIFICATION				Sample Date/Time
81185 000003 P-3						11/06/2001 11:45
Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial	
Methane, dissolved	0.066	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB	
Carbon Dioxide	24	mg/l	SM 4500	1	11/07/2001 15:00 BTA	
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ	
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM	
Nitrate-Nitrite Nitrogen	0.12	mg/l	EPA 353.1	0.05	11/08/2001 00:19 MDS	
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB	
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB	
Chemical Oxygen Demand	<20	mg/l	EPA 410.4	20	11/15/2001 11:30 BM	
Phosphorus (total)	0.17	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM	
TOC (Total Organic Carbon)	6.9	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK	
Sodium	7.0	mg/l	EPA 200.7	0.5	11/14/2001 16:59 DLJ	
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 16:59 DLJ	
Calcium	8.0	mg/l	EPA 200.7	0.5	11/14/2001 16:59 DLJ	
Magnesium	2.0	mg/l	EPA 200.7	0.5	11/14/2001 16:59 DLJ	
Iron	0.89	mg/l	EPA 200.7	0.01	11/14/2001 16:59 DLJ	
Manganese	0.11	mg/l	EPA 200.7	0.01	11/14/2001 16:59 DLJ	
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB	
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB	
Chromium	<0.005	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB	
Copper	0.010	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB	
Lead	<0.005	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB	
Zinc	0.03	mg/l	EPA 200.7	0.01	11/14/2001 16:59 DLJ	
Nickel	0.008	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB	
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB	
Bicarbonates (as CaCO3)	18	mg/l	EPA 310.1	1	11/12/2001 11:20 TB	
Chloride	14	mg/l	EPA 325.2	2	11/12/2001 13:55 BM	
Sulfate	6.7	mg/l	EPA 375.3	5	11/19/2001 15:15 CBS	
Nitrate Nitrogen	0.1	mg/l	EPA 353.1	0.05	11/16/2001 00:19 CBS	
Nitrite Nitrogen	0.02	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM	
Total Nitrogen	0.12	mg/l	EPA Var	0.05	/ /	
Alkalinity, total (as CaCO3)	18	mg/l	EPA 310.1	1	11/12/2001 11:20 TB	
Solids (Dissolved)	64	mg/l	EPA 160.1	1	11/09/2001 13:07 TB	
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB	
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB	

MARTEL NO.		CLIENT SAMPLE IDENTIFICATION				Sample Date/Time
81185 000004 P-4						11/06/2001 14:00
Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial	
Methane, dissolved	0.090	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB	
Carbon Dioxide	8	mg/l	SM 4500	1	11/07/2001 15:00 BTA	
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ	
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM	
Nitrate-Nitrite Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/08/2001 00:33 MDS	

MARTEL NO.
81185 000004 P-4

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time
11/06/2001 14:00

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	71	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.57	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	22	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	4.9	mg/l	EPA 200.7	0.5	11/14/2001 17:03 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:03 DLJ
Calcium	5.6	mg/l	EPA 200.7	0.5	11/14/2001 17:03 DLJ
Magnesium	2.3	mg/l	EPA 200.7	0.5	11/14/2001 17:03 DLJ
Iron	7.6	mg/l	EPA 200.7	0.01	11/14/2001 17:03 DLJ
Manganese	0.35	mg/l	EPA 200.7	0.01	11/14/2001 17:03 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.047	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	0.027	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	0.025	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.06	mg/l	EPA 200.7	0.01	11/14/2001 17:03 DLJ
Nickel	0.014	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO ₃)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	10	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	41	mg/l	EPA 375.3	5	11/19/2001 15:28 CBS
Nitrate Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/16/2001 00:33 CBS
Nitrite Nitrogen	<0.02	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	<0.05	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO ₃)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	18	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO.
81185 000005 P-5

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time
11/06/2001 11:15

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	0.0063	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	60	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/08/2001 01:01 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	65	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.65	mg/kg	EPA 365.2	0.05	11/15/2001 16:27 BM
TOC (Total Organic Carbon)	5.9	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK

MARTEL NO.		CLIENT SAMPLE IDENTIFICATION			Sample Date/Time
81185	000005	P-5			11/06/2001 11:15
Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Sodium	9.0	mg/l	EPA 200.7	0.5	11/14/2001 17:07 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:07 DLJ
Calcium	9.7	mg/l	EPA 200.7	0.5	11/14/2001 17:07 DLJ
Magnesium	8.3	mg/l	EPA 200.7	0.5	11/14/2001 17:07 DLJ
Iron	11	mg/l	EPA 200.7	0.01	11/14/2001 17:07 DLJ
Manganese	4.2	mg/l	EPA 200.7	0.01	11/14/2001 17:07 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.011	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	0.023	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	0.016	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.05	mg/l	EPA 200.7	0.01	11/14/2001 17:07 DLJ
Nickel	0.019	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	32	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	13	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	20	mg/l	EPA 375.3	5	11/19/2001 16:11 CBS
Nitrate Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/16/2001 01:01 CBS
Nitrite Nitrogen	0.03	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	<0.05	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO3)	32	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	140	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO.		CLIENT SAMPLE IDENTIFICATION				Sample Date/Time
81185	000006	P-6				11/06/2001 14:30
Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial	
Methane, dissolved	0.0011	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB	
Carbon Dioxide	16	mg/l	SM 4500	1	11/07/2001 15:00 BTA	
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ	
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM	
Nitrate-Nitrite Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/08/2001 01:15 MDS	
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB	
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB	
Chemical Oxygen Demand	49	mg/l	EPA 410.4	20	11/15/2001 11:30 BM	
Phosphorus (total)	0.55	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM	
TOC (Total Organic Carbon)	14	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK	
Sodium	3.6	mg/l	EPA 200.7	0.5	11/14/2001 17:10 DLJ	
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:10 DLJ	
Calcium	3.6	mg/l	EPA 200.7	0.5	11/14/2001 17:10 DLJ	
Magnesium	2.1	mg/l	EPA 200.7	0.5	11/14/2001 17:10 DLJ	
Iron	2.5	mg/l	EPA 200.7	0.01	11/14/2001 17:10 DLJ	

MARTEL NO.
81185 000006 P-6

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time
11/06/2001 14:30

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Manganese	0.30	mg/l	EPA 200.7	0.01	11/14/2001 17:10 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	0.0007	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.035	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	0.018	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	0.012	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.04	mg/l	EPA 200.7	0.01	11/14/2001 17:10 DLJ
Nickel	0.011	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO ₃)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	6	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	20	mg/l	EPA 375.3	5	11/19/2001 16:25 CBS
Nitrate Nitrogen	<0.05	mg/l	EPA 353.1	0.05	11/16/2001 01:15 CBS
Nitrite Nitrogen	<0.02	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	<0.05	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO ₃)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	50	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO.
81185 000007 P-7

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time
11/06/2001 15:00

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	0.00053	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	20	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	1.7	mg/l	EPA 353.1	0.05	11/08/2001 01:28 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	36	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.33	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	7.2	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	8.2	mg/l	EPA 200.7	0.5	11/14/2001 17:14 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:14 DLJ
Calcium	4.8	mg/l	EPA 200.7	0.5	11/14/2001 17:14 DLJ
Magnesium	2.4	mg/l	EPA 200.7	0.5	11/14/2001 17:14 DLJ
Iron	4.5	mg/l	EPA 200.7	0.01	11/14/2001 17:14 DLJ
Manganese	0.09	mg/l	EPA 200.7	0.01	11/14/2001 17:14 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.047	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	0.014	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB

MARTEL NO.
81185 000007 P-7

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time
11/06/2001 15:00

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Lead	0.012	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.07	mg/l	EPA 200.7	0.01	11/14/2001 17:14 DLJ
Nickel	0.037	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	25	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	9.2	mg/l	EPA 375.3	5	11/19/2001 16:39 CBS
Nitrate Nitrogen	1.7	mg/l	EPA 353.1	0.05	11/16/2001 01:28 CBS
Nitrite Nitrogen	<0.02	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	1.7	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO3)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	69	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Femic by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO.
81185 000008 P-8

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time
11/06/2001 15:30

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	<0.0005	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	14	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	0.18	mg/l	EPA 353.1	0.05	11/08/2001 01:42 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	21	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.12	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	3.3	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	7.5	mg/l	EPA 200.7	0.5	11/14/2001 17:18 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:18 DLJ
Calcium	4.3	mg/l	EPA 200.7	0.5	11/14/2001 17:18 DLJ
Magnesium	0.9	mg/l	EPA 200.7	0.5	11/14/2001 17:18 DLJ
Iron	0.27	mg/l	EPA 200.7	0.01	11/14/2001 17:18 DLJ
Manganese	0.07	mg/l	EPA 200.7	0.01	11/14/2001 17:18 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	<0.005	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	<0.005	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	<0.005	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.03	mg/l	EPA 200.7	0.01	11/14/2001 17:18 DLJ
Nickel	0.007	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO3)	4	mg/l	EPA 310.1	1	11/12/2001 11:20 TB

MARTEL NO.
81185 000008 P-8

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time
11/06/2001 15:30

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Chloride	19	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	6.1	mg/l	EPA 375.3	5	11/19/2001 16:52 CBS
Nitrate Nitrogen	0.1	mg/l	EPA 353.1	0.05	11/16/2001 01:42 CBS
Nitrite Nitrogen	0.08	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	0.18	mg/l	EPA Var	0.05	/ /
Alkalinity, total (as CaCO ₃)	4	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Solids (Dissolved)	48	mg/l	EPA 160.1	1	11/09/2001 13:07 TB
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB

MARTEL NO.
81185 000009 P-9

CLIENT SAMPLE IDENTIFICATION

Sample Date/Time
11/06/2001 14:45

Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial
Methane, dissolved	<0.0005	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB
Carbon Dioxide	25	mg/l	SM 4500	1	11/07/2001 15:00 BTA
Total Petroleum Hydrocarbons	<2	mg/l	EPA 418.1	2	11/16/2001 11:25 DLJ
Sulfide	<0.1	mg/l	EPA 376.2	0.1	11/12/2001 14:30 BM
Nitrate-Nitrite Nitrogen	0.42	mg/l	EPA 353.1	0.05	11/08/2001 01:56 MDS
Kjeldahl Nitrogen (Total)	<0.5	mg/l	EPA 351.3	0.5	11/09/2001 09:10 TB
Ammonia Nitrogen	<0.2	mg/l	EPA 350.2	0.2	11/08/2001 11:45 TB
Chemical Oxygen Demand	<20	mg/l	EPA 410.4	20	11/15/2001 11:30 BM
Phosphorus (total)	0.09	mg/l	EPA 365.2	0.05	11/14/2001 15:21 BM
TOC (Total Organic Carbon)	1.8	mg/l	EPA 415.1	0.1	11/11/2001 11:00 AK
Sodium	8.5	mg/l	EPA 200.7	0.5	11/14/2001 17:22 DLJ
Potassium	<5.0	mg/l	EPA 200.7	5	11/14/2001 17:22 DLJ
Calcium	2.8	mg/l	EPA 200.7	0.5	11/14/2001 17:22 DLJ
Magnesium	1.6	mg/l	EPA 200.7	0.5	11/14/2001 17:22 DLJ
Iron	0.35	mg/l	EPA 200.7	0.01	11/14/2001 17:22 DLJ
Manganese	0.04	mg/l	EPA 200.7	0.01	11/14/2001 17:22 DLJ
Arsenic	<0.005	mg/l	EPA 206.2	0.005	11/15/2001 10:42 LB
Cadmium	<0.0005	mg/l	EPA 213.2	0.0005	11/14/2001 09:45 LB
Chromium	0.007	mg/l	EPA 218.2	0.005	11/14/2001 11:46 LB
Copper	<0.005	mg/l	EPA 220.2	0.005	11/14/2001 11:46 LB
Lead	<0.005	mg/l	EPA 239.2	0.005	11/15/2001 07:53 LB
Zinc	0.03	mg/l	EPA 200.7	0.01	11/14/2001 17:22 DLJ
Nickel	0.009	mg/l	EPA 249.2	0.005	11/14/2001 11:46 LB
Selenium	<0.005	mg/l	EPA 270.2	0.005	11/15/2001 09:17 LB
Bicarbonates (as CaCO ₃)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB
Chloride	22	mg/l	EPA 325.2	2	11/12/2001 13:55 BM
Sulfate	11	mg/l	EPA 375.3	5	11/19/2001 17:06 CBS
Nitrate Nitrogen	0.4	mg/l	EPA 353.1	0.05	11/16/2001 01:56 CBS
Nitrite Nitrogen	<0.02	mg/l	EPA 353.1	0.02	11/07/2001 14:30 BM
Total Nitrogen	0.42	mg/l	EPA Var	0.05	/ /


MARTEL NO.			CLIENT SAMPLE IDENTIFICATION				Sample Date/Time
81185 000009 P-9							11/06/2001 14:45
Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial		
Alkalinity, total (as CaCO ₃)	<1	mg/l	EPA 310.1	1	11/12/2001 11:20 TB		
Solids (Dissolved)	62	mg/l	EPA 160.1	1	11/09/2001 13:07 TB		
Iron (ferrous)	Indeterminate		SM 315B	60	11/15/2001 10:00 LB		
Iron (Ferric by Calculation)	Indeterminate		SM 3500D	60	11/15/2001 10:00 LB		

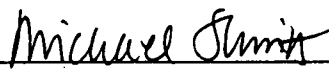
MARTEL NO.			CLIENT SAMPLE IDENTIFICATION				Sample Date/Time
81185 0010TB Trip Blank							11/06/2001 08:00
Compound	Test Value	Test Unit	Method	Detection Limit	Analysis Date/Time/Initial		
Methane, dissolved	<0.0005	mg/l	EPA RSK 175	0.0005	11/13/2001 12:00 SUB		

All Procedures used are in accordance with the following methods:

"Methods of Chemical Analysis of Water and Wastewater", EPA 600/4-79/020, U.S. EPA, Cincinnati, Revised March 1983. "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", U.S. EPA, Appendix A to 40 CFR Part 136, Vol. 49, No. 209, October 26, 1984. "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992.

****Note:** Total Nitrate-Nitrite Nitrogen is the sum of Nitrate and Nitrite analytical results. Total Nitrogen is the sum of Total Nitrate-Nitrite and Kjeldahl Nitrogen analytical results. The ferrous and ferric iron test methods were indeterminate (detection limit of about 60 mg/l) given the relatively low levels of total iron present in the samples.

QC 
Date 11/29/01

Approved 
Date 11/29/01

CHAIN OF CUSTODY / SAMPLE INFORMATION FORM

81185

Martel Laboratories JDS Inc. • 1025 Cromwell Bridge Road • Baltimore, MD 21286 • (410) 825-7790 • FAX (410) 821-1054

Martel Lab # _____ Client Code **KCEENG**

Sampler _____

Client Name/Phone/FAX _____

Project Name/# Stancill Quarry Groundwaters

Client Address _____

Contract/P.O Number _____

Invoice Address _____

Sample Turnaround Time ROUTINE

Station No./ Sample ID	Station Location	Matrix	Container Description/ Preservation Status	Potentially Hazardous?	# of Containers	Date	Time	Analyses Required/Comments
1	P-1	WATER	40 ml VOA/HCL	NO	3	11/6/01	1030	METHANE
			250 ml amber glass/4C		1			CO2
			liter clear glass/H2SO4		1			TPH
			250 ml plastic/ZnAcetate/NaOH		1			S3
			500 ml plastic/H2SO4		1			NO32, TKN, NH3, COD, AP, TOC
			liter plastic/HNO3		1			NA, K, CA, MG, FE, MN, AS2, CD2, CR2, CU2, PB2, NI2, SE2
			1/2 gallon plastic/NONE		1			HCO3. CL, SO4, NO3, NO2, N, ALK, DS, FEOUS, FERRIC
2	P-2		(SAME AS SAMPLE 1)		9	11-6	1335	(SAME AS SAMPLE 1)
3	P-3		(SAME AS SAMPLE 1)		9	11-6	1145	(SAME AS SAMPLE 1)
4	P-4		(SAME AS SAMPLE 1)		9	11-6	1400	(SAME AS SAMPLE 1)
5	P-5		(SAME AS SAMPLE 1)		9	11-6	1115	(SAME AS SAMPLE 1)
6	P-6		(SAME AS SAMPLE 1)		9	11-6	1430	(SAME AS SAMPLE 1)
7	P-7		(SAME AS SAMPLE 1)		9	11-6	1500	(SAME AS SAMPLE 1)

Transferred by: V. Kallman

Received by: [Signature]

Date 11-6-01 Time 1815

Transferred by: _____

Received by: _____

Date _____ Time _____

Transferred by: _____

Received by: _____

Date _____ Time _____

Cooler Receipt Information (LAB USE ONLY)
 Sufficient ice? Yes/No If No, temp. = _____
 Sample containers pres'd? Yes/No If No, explain _____
 Custody Seal present/intact? Yes/No NA
 Initials: BSA Date: 11-6-01

CHAIN OF CUSTODY / SAMPLE INFORMATION FORM

81185

Martel Laboratories JDS Inc. • 1025 Cromwell Bridge Road • Baltimore, MD 21286 • (410) 825-7790 • FAX (410) 821-1054

Client Name/Phone/FAX _____

Client Address _____

Invoice Address _____

Sampler _____

Project Name/# Stancill Quarry Groundwaters

Contract/P.O Number _____

Sample Turnaround Time ROUTINE

Station No./ Sample ID	Station Location	Matrix	Container Description/ Preservation Status	Potentially Hazardous?	# of Containers	Date	Time	Analyses Required/Comments
8	P-8	WATER	40 ml VOA/HCL	NO	3	11-6	1530	METHANE
			250 ml amber glass/4C		1			CO2
			liter clear glass/H2SO4		1			TPH
			250 ml plastic/ZnAcetate/NaOH		1			S3
			500 ml plastic/H2SO4		1			NO32, TKN, NH3, COD, AP, TOC
			liter plastic/HNO3		1			NA, K, CA, MG, FE, MN, AS2, C/D2, CR2, CU2, PB2, 7 NI2, SE2
			1/2 gallon plastic/NONE		1			HCO3. CL, SO4, NO3, NO2, N, ALK, DS, FEOUS, FERRIC
9	P-9		(SAME AS SAMPLE 1)		9	11-6	1445	(SAME AS SAMPLE 1)
10	Trap Blank		(SAME AS SAMPLE 1)		9			(SAME AS SAMPLE 1) Methane
			(SAME AS SAMPLE 1)		9			(SAME AS SAMPLE 1)
			(SAME AS SAMPLE 1)		9			(SAME AS SAMPLE 1)
			(SAME AS SAMPLE 1)		9			(SAME AS SAMPLE 1)
			(SAME AS SAMPLE 1)		9			(SAME AS SAMPLE 1)

Transferred by: Vin Kathuna

Received by: [Signature]

Date 11-6-01 Time 1315

Transferred by: _____

Received by: _____

Date _____ Time _____

Transferred by: _____

Received by: _____

Date _____ Time _____

Cooler Receipt Information (LAB USE ONLY)
 Sufficient ice? - Yes/No If No, temp. = _____
 Sample containers pres'd? - Yes/No If No, explain _____
 Custody Seal present/intact? - Yes/No _____
 Initials: BTA Date: 11/6/01



ATLANTIC COAST
Laboratories, Incorporated

630 Churchmans Road
Newark, Delaware 19702
302-266-9121 • 454-8720 (FAX)

REPORT OF ANALYSIS

Maryland Environmental Svc
2011 Commerce Park Drive
Annapolis, MD 21401

Attn: Mr. Rex A. Lloyd

Order #: 02-02-812
Date: 03/13/02 16:37
Work ID: Furnace Bay GW Study-Soils
Date Received: 02/20/02
Date Completed: 03/13/02

Purchase Order: 98-04-11/1-01 Act:2170292
Invoice Number:

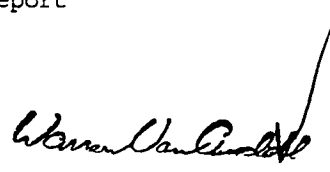
Client Code: MES_AB

SAMPLE IDENTIFICATION

Sample Number	Sample Description
01	SS122002
02	SS222002

Sample Number	Sample Description
03	SS222002 dup
04	SS322002

This cover page is an integral part of the analytical report
that follows.



Certified By
Warren Van Arsdall

RECEIVED
MAR 18 2002
Maryland Environmental Service
03

03/13/02 16:24

TEST RESULTS BY SAMPLE

Sample: 01A SS122002
Collected: 02/20/02 09:36

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Solid Waste, water extract	02/22/02		date extracted	JPG	
TCLP Extraction	02/22/02		date extracted	JPG	
TCLP, Zero Headspace Ext	02/22/02		data extracted	JPG	

Sample: 01B SS122002 TCLP
Collected: 02/20/02 09:36

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	170	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
Carbon dioxide, free	1.0		mg/L as CO2	REP	02/22/02 12:45
Chloride, Ion Chrom	ND	0.39	mg/L	MSO	02/22/02 17:21
Ferrous Iron	ND	0.02	mg/L	BLT	02/28/02 07:15
Ion chromatography	02/22/02		date complete		
Nitrate, Ion Chrom	2.14	0.06	mg/L as N	MSO	02/22/02 17:21
Nitrate/Nitrite-Ion Chrom	2.14	0.08	mg/L as N	MSO	02/22/02 17:21
Solids, Total Dissolved	4262	10	mg/L	MS	02/26/02 13:24
Sulfate, Ion Chrom	91.5	0.38	mg/L	MSO	02/22/02 17:21
Total Alkalinity-Titration	170	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00

Sample: 01C SS122002 TCLP
Collected: 02/20/02 09:36

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Ammonia, Automated Phenate	0.28	0.20	mg/L as N	KS	02/26/02 11:18
Chemical Oxygen Demand	5440	10	mg/L	KS	03/05/02 10:25
Digestion, TKN/Total P	02/28/02		date prepared		
Phosphorous, Total	0.06	0.02	mg/L as P	MVP	03/01/02 10:17
Total Kjeldahl Nitrogen	1.4	0.20	mg/L as N	MVP	03/01/02 10:17
Total Nitrogen	3.5	0.20	mg/L as N	MVP	03/01/02 10:17
Total Organic Carbon, Aq	1894	100	mg/L	KS	02/28/02 15:56

Sample: 01D SS122002 TCLP
Collected: 02/20/02 09:36

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Metals, ICP/MS	02/26/02		date analyzed	JTH	02/26/02 15:09
TCLP, Arsenic	02/26/02		date analyzed		
TCLP, Cadmium	02/26/02		date analyzed		
TCLP, Calcium	02/26/02		date complete		
TCLP, Chromium	02/26/02		date analyzed		
TCLP, Copper	02/26/02		date analyzed		
TCLP, Iron	02/26/02		date analyzed		
TCLP, Lead	02/26/02		date analyzed		
TCLP, Magnesium	02/26/02		date analyzed		
TCLP, Manganese	02/26/02		date analyzed		
TCLP, Nickel	02/26/02		date analyzed		
TCLP, Potassium	02/26/02		date analyzed		

03/13/02 16:24

TEST RESULTS BY SAMPLE

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
TCLP, Selenium	02/26/02		date analyzed		
TCLP, Sodium	02/26/02		date analyzed		
TCLP, Zinc	02/26/02		date analyzed		

Sample: 01E SS122002 TCLP
Collected: 02/20/02 09:36

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Tot. Pet. Hyd., Grav, 1664	21	5.5	mg/L KSC		10/10/02 08:30

Sample: 01F SS122002 TCLP
Collected: 02/20/02 09:36

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	ND	0.03	mg/L MSO		02/27/02 09:45

Sample: 01H SS122002 ASTM leach
Collected: 02/20/02 09:36

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Metals, ICP/OES	03/01/02		date analyzed		
Sodium, ICP	2.76	0.20	mg/L LC		03/01/02 10:24

Sample: 01I SS122002 ASTM leach
Collected: 02/20/02 09:36

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	4	1.0	mg/L as CaCO3	BLT	02/26/02 09:05
Carbon dioxide, free	<1.25		mg/L as CO2	REP	03/13/02 14:45
Dissolved Oxygen	6.10	1.0	mg/L EL		02/22/02 13:27
Redox Potential of Water	155		mV	BLT	02/25/02
Specific Conductance	212	1.08	umhos at 25C	BCJ	02/27/02 13:50
Total Alkalinity-Titration	4	1.0	mg/L as CaCO3	BLT	02/26/02 09:05
pH	6.31	0.5	pH Units	BLT	02/26/02 08:30

Sample: 01J SS122002 ASTM leach
Collected: 02/20/02 09:36

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Chemical Oxygen Demand	ND	10	mg/L KS		02/28/02 11:05
Total Organic Carbon, Aq	2.3	1.0	mg/L KS		02/26/02 10:48

Sample: 01K SS122002 ASTM leach
Collected: 02/20/02 09:36

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	ND	0.03	mg/L MSO		02/27/02 09:45

03/13/02 16:24

TEST RESULTS BY SAMPLE

Sample: 02A SS222002
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Solid Waste, water extract	02/26/02		date extracted	JK	
TCLP Extraction	02/26/02		date extracted	JK	
TCLP, Zero Headspace Ext	02/26/02		data extracted	JK	

Sample: 02B SS222002 TCLP
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	165	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
Carbon dioxide, free	<1.25		mg/L as CO2	REP	03/13/02 14:45
Chloride, Ion Chrom	24.8	0.39	mg/L	MSO	02/26/02 14:18
Ferrous Iron	ND	0.02	mg/L	BLT	02/28/02 07:15
Ion chromatography	02/26/02		date complete		
Nitrate, Ion Chrom	ND	0.06	mg/L as N	MSO	02/26/02 14:18
Nitrite, Ion Chrom	ND	0.02	mg/L as N	MSO	02/26/02 14:18
Solids, Total Dissolved	4402	10	mg/L	MS	02/26/02 13:24
Sulfate, Ion Chrom	129	0.38	mg/L	MSO	02/26/02 14:18
Total Alkalinity-Titration	165	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00

Sample: 02C SS222002 TCLP
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Ammonia, Automated Phenate	0.46	0.20	mg/L as N	KS	02/26/02 11:18
Chemical Oxygen Demand	5630	10	mg/L	KS	03/05/02 10:25
Digestion, TKN/Total P	02/28/02		date prepared		
Phosphorous, Total	0.05	0.02	mg/L as P	MVP	03/01/02 10:17
Total Kjeldahl Nitrogen	0.85	0.20	mg/L as N	MVP	03/01/02 10:17
Total Nitrogen	0.85	0.20	mg/L as N	MVP	03/01/02 10:17
Total Organic Carbon, Aq	1943	100	mg/L	KS	02/28/02 15:56

Sample: 02D SS222002 TCLP
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Metals, ICP/MS	02/26/02		date analyzed	JTH	02/26/02 20:06
TCLP, Arsenic	02/26/02		date analyzed		
TCLP, Cadmium	02/26/02		date analyzed		
TCLP, Calcium	02/26/02		date complete		
TCLP, Chromium	02/26/02		date analyzed		
TCLP, Copper	02/26/02		date analyzed		
TCLP, Iron	02/26/02		date analyzed		
TCLP, Lead	02/26/02		date analyzed		
TCLP, Magnesium	02/26/02		date analyzed		
TCLP, Manganese	02/26/02		date analyzed		
TCLP, Nickel	02/26/02		date analyzed		
TCLP, Potassium	02/26/02		date analyzed		

TEST RESULTS BY SAMPLE

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u> <u>By</u> <u>Analyzed Dt/Tm</u>
TCLP, Selenium	02/26/02		date analyzed
TCLP, Sodium	02/26/02		date analyzed
TCLP, Zinc	02/26/02		date analyzed

Sample: 02E SS222002 TCLP
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u> <u>By</u> <u>Analyzed Dt/Tm</u>
Tot. Pet. Hyd., Grav, 1664	ND	5	mg/L KSC 02/27/02 10:15

Sample: 02F SS222002 TCLP
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u> <u>By</u> <u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	ND	0.03	mg/L MSO 02/27/02 09:45

Sample: 02H SS222002 leach
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u> <u>By</u> <u>Analyzed Dt/Tm</u>
Metals, ICP/OES	03/05/02		date analyzed
Sodium, ICP	9.60	0.20	mg/L LC 03/05/02 09:22

Sample: 02I SS222002 leach
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u> <u>By</u> <u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	1.0	1.0	mg/L as CaCO3 BCJ 03/06/02 13:00
Carbon dioxide, free	2.5		mg/L as CO2 REP 02/26/02 13:20
Dissolved Oxygen	5.82	1.0	mg/L JK 02/26/02 11:50
Redox Potential of Water	147		mV BLT 02/27/02
Specific Conductance	269	1.08	umhos at 25C BCJ 02/27/02 13:50
Total Alkalinity-Titration	1.0	1.0	mg/L as CaCO3 BCJ 03/06/02 13:00
pH	6.16	0.5	pH Units BLT 03/04/02 11:35

Sample: 02J SS222002 leach
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u> <u>By</u> <u>Analyzed Dt/Tm</u>
Chemical Oxygen Demand	ND	10	mg/L KS 02/28/02 11:05
Total Organic Carbon, Aq	ND	1.0	mg/L KS 02/28/02 15:56

Sample: 02K SS222002 leach
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u> <u>By</u> <u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	ND	0.03	mg/L MSO 02/27/02 09:45

03/13/02 16:24

TEST RESULTS BY SAMPLE

Sample: 03A SS222002 dup

Category: SOIL

Collected: 02/20/02 10:00

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units By</u>	<u>Analyzed Dt/Tm</u>
Solid Waste, water extract	02/26/02		date extracted JK	
TCLP Extraction	02/26/02		date extracted JK	
TCLP, Zero Headspace Ext	02/26/02		data extracted JK	

Sample: 03B SS222002 dup TCLP

Category: SOIL

Collected: 02/20/02 10:00

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units By</u>	<u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	130	1.0	mg/L as CaCO3 BCJ	03/06/02 13:00
Carbon dioxide, free	<1.25		mg/L as CO2 REP	03/13/02 14:45
Chloride, Ion Chrom	19.4	0.39	mg/L MSO	02/26/02 14:29
Ferrous Iron	ND	0.02	mg/L BLT	02/28/02 07:15
Ion chromatography	02/26/02		date complete	
Nitrate, Ion Chrom	ND	0.06	mg/L as N MSO	02/26/02 14:29
Nitrite, Ion Chrom	ND	0.02	mg/L as N MSO	02/26/02 14:29
Solids, Total Dissolved	4394	10	mg/L MS	02/26/02 13:24
Sulfate, Ion Chrom	120	0.38	mg/L MSO	02/26/02 14:29
Total Alkalinity-Titration	130	1.0	mg/L as CaCO3 BCJ	03/06/02 13:00

Sample: 03C SS222002 dup TCLP

Category: SOIL

Collected: 02/20/02 10:00

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units By</u>	<u>Analyzed Dt/Tm</u>
Ammonia, Automated Phenate	0.21	0.20	mg/L as N KS	02/26/02 11:18
Chemical Oxygen Demand	5450	10	mg/L KS	03/05/02 10:25
Digestion, TKN/Total P	02/28/02		date prepared	
Phosphorous, Total	0.05	0.02	mg/L as P MVP	03/01/02 10:17
Total Kjeldahl Nitrogen	0.70	0.20	mg/L as N MVP	03/01/02 10:17
Total Nitrogen	0.70	0.20	mg/L as N MVP	03/01/02 10:17
Total Organic Carbon, Aq.	1947	100	mg/L KS	02/28/02 15:56

Sample: 03D SS222002 dup TCLP

Category: SOIL

Collected: 02/20/02 10:00

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units By</u>	<u>Analyzed Dt/Tm</u>
Metals, ICP/MS	02/26/02		date analyzed JTH	02/26/02 19:59
TCLP, Arsenic	02/26/02		date analyzed	
TCLP, Cadmium	02/26/02		date analyzed	
TCLP, Calcium	02/26/02		date complete	
TCLP, Chromium	02/26/02		date analyzed	
TCLP, Copper	02/26/02		date analyzed	
TCLP, Iron	02/26/02		date analyzed	
TCLP, Lead	02/26/02		date analyzed	
TCLP, Magnesium	02/26/02		date analyzed	
TCLP, Manganese	02/26/02		date analyzed	
TCLP, Nickel	02/26/02		date analyzed	
TCLP, Potassium	02/26/02		date analyzed	

03/13/02 16:24

TEST RESULTS BY SAMPLE

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
TCLP, Selenium	02/26/02		date analyzed		
TCLP, Sodium	02/26/02		date analyzed		
TCLP, Zinc	02/26/02		date analyzed		

Sample: 03E SS222002 dup TCLP
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Tot. Pet. Hyd., Grav, 1664	ND	5	mg/L	KSC	02/27/02 10:15

Sample: 03F SS222002 dup TCLP
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

Sample: 03H SS222002 dup leach
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Metals, ICP/OES	03/05/02		date analyzed		
Sodium, ICP	14.0	0.20	mg/L	LC	03/05/02 09:25

Sample: 03I SS222002 dup leach
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	1.0	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
Carbon dioxide, free	3.75		mg/L as CO2	REP	02/26/02 13:20
Dissolved Oxygen	5.74	1.0	mg/L	JK	02/26/02 11:50
Redox Potential of Water	153		mV	BLT	02/27/02
Specific Conductance	260	1.08	umhos at 25C	BCJ	02/27/02 13:50
Total Alkalinity-Titration	1.0	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
pH	6.15	0.5	pH Units	BLT	03/04/02 11:35

Sample: 03J SS222002 dup leach
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Chemical Oxygen Demand	ND	10	mg/L	KS	02/28/02 11:05
Total Organic Carbon, Aq	1.0	1.0	mg/L	KS	02/28/02 15:56

Sample: 03K SS222002 dup leach
Collected: 02/20/02 10:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

03/13/02 16:24

TEST RESULTS BY SAMPLE

Sample: 04A SS322002
Collected: 02/20/02 10:35

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Solid Waste, water extract	02/22/02		date extracted	JPG	
TCLP Extraction	02/22/02		date extracted	JPG	
TCLP, Zero Headspace Ext	02/22/02		data extracted	JPG	

Sample: 04B SS322002 TCLP
Collected: 02/20/02 10:35

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	170	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00
Carbon dioxide, free	6.25		mg/L as CO2	REP	02/22/02 12:45
Chloride, Ion Chrom	ND	0.39	mg/L	MSO	02/22/02 17:32
Ferrous Iron	ND	0.02	mg/L	BLT	02/28/02 07:15
Ion chromatography	02/22/02		date complete		
Nitrate, Ion Chrom	0.372	0.06	mg/L as N	MSO	02/22/02 17:32
Nitrite, Ion Chrom	ND	0.02	mg/L as N	MSO	02/22/02 17:32
Solids, Total Dissolved	4204	10	mg/L	MS	02/26/02 13:24
Sulfate, Ion Chrom	115	0.38	mg/L	MSO	02/22/02 17:32
Total Alkalinity-Titration	170	1.0	mg/L as CaCO3	BCJ	03/06/02 13:00

Sample: 04C SS322002 TCLP
Collected: 02/20/02 10:35

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Ammonia, Automated Phenate	0.73	0.20	mg/L as N	KS	02/26/02 11:18
Chemical Oxygen Demand	5240	10	mg/L	KS	03/05/02 10:25
Digestion, TKN/Total P	02/28/02		date prepared		
Phosphorous, Total	0.06	0.02	mg/L as P	MVP	02/28/02 10:17
Total Kjeldahl Nitrogen	1.9	0.20	mg/L as N	MVP	03/01/02 10:17
Total Nitrogen	2.3	0.20	mg/L as N	MVP	03/01/02 10:17
Total Organic Carbon, Aq	1896	100	mg/L	KS	02/28/02 15:56

Sample: 04D SS322002 TCLP
Collected: 02/20/02 10:35

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Metals, ICP/MS	02/26/02		date analyzed	JTH	02/26/02 15:17
TCLP, Arsenic	02/26/02		date analyzed		
TCLP, Cadmium	02/26/02		date analyzed		
TCLP, Calcium	02/26/02		date complete		
TCLP, Chromium	02/26/02		date analyzed		
TCLP, Copper	02/26/02		date analyzed		
TCLP, Iron	02/26/02		date analyzed		
TCLP, Lead	02/26/02		date analyzed		
TCLP, Magnesium	02/26/02		date analyzed		
TCLP, Manganese	02/26/02		date analyzed		
TCLP, Nickel	02/26/02		date analyzed		
TCLP, Potassium	02/26/02		date analyzed		

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03/13/02 16:24

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TEST RESULTS BY SAMPLE

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
TCLP, Selenium	02/26/02			date analyzed	
TCLP, Sodium	02/26/02			date analyzed	
TCLP, Zinc	02/26/02			date analyzed	

Sample: 04E SS322002 TCLP
Collected: 02/20/02 10:35

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Tot. Pet. Hyd., Grav, 1664	9.7	5.4	mg/L KSC		02/25/02 10:08

Sample: 04F SS322002 TCLP
Collected: 02/20/02 10:35

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	ND	0.03	mg/L MSO		02/27/02 09:45

Sample: 04H SS322002 leach
Collected: 02/20/02 10:35

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Metals, ICP/OES	03/05/02			date analyzed	
Sodium, ICP	2.95	0.20	mg/L LC		03/05/02 09:28

Sample: 04I SS322002 leach
Collected: 02/20/02 10:35

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	6	1.0	mg/L as CaCO3	BLT	02/26/02 09:05
Carbon dioxide, free	6.25		mg/L as CO2	REP	02/22/02 12:45
Dissolved Oxygen	6.08	1.0	mg/L EL		02/22/02 13:30
Redox Potential of Water	155		mV	BLT	02/25/02
Specific Conductance	187	1.08	umhos at 25C	BCJ	02/27/02 13:50
Total Alkalinity-Titration	6	1.0	mg/L as CaCO3	BLT	02/26/02 09:05
pH	6.58	0.5	pH Units	BLT	02/26/02 08:30

Sample: 04J SS322002 leach
Collected: 02/20/02 10:35

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Chemical Oxygen Demand	ND	10	mg/L KS		02/28/02 11:05
Total Organic Carbon, Aq	2.1	1.0	mg/L KS		02/26/02 10:48

Sample: 04K SS322002 leach
Collected: 02/20/02 10:35

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	ND	0.03	mg/L MSO		02/27/02 09:45

TEST RESULTS BY SAMPLE

Sample Description: SS122002 TCLP
Test Description: TCLP, Metals
Collected: 02/20/02 09:36

Lab No: 01D
Method:
Category: SOIL

Test Code: TCLPMP

PARAMETER		RESULT	LIMIT	UNITS
Element	Regulatory Limit (mg/L)			
Arsenic	5.0	ND	0.10	
Barium	100.0	--	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	--	0.0010	
Selenium	1.0	ND	0.10	
Silver	5.0	--	0.10	
Unregulated Metals				
Boron		--	0.10	
Aluminum		--	0.10	
Antimony		--	0.10	
Beryllium		--	0.10	
Calcium		15	5.0	
Cobalt		--	0.10	
Copper		ND	0.10	
Nickel		0.16	0.10	
Iron		ND	0.50	
Magnesium		6.0	0.50	
Manganese		6.5	0.10	
Molybdenum		--	0.10	
Sodium		1182	10	
Strontium		--	0.50	
Thallium		--	0.10	
Vanadium		--	0.10	
Zinc		0.67	0.10	
Tin		--	1.0	
Titanium		--	0.50	
Silica		--	10	
Tungsten		--	0.50	

Notes and Definitions for this Report:

DATE RUN 02/26/02
ANALYST JTH
INSTRUMENT ICPMS
FILE ID
CONC FACTOR 50
UNITS mg/l

03/13/02 16:24

TEST RESULTS BY SAMPLE

Sample Description: SS222002 TCLP
 Test Description: TCLP, Metals
 Collected: 02/20/02 10:00

Lab No: 02D
 Method:
 Category: SOIL

Test Code: TCLPMP

PARAMETER		RESULT	LIMIT	UNITS
Element	Regulatory			
	Limit (mg/L)			
Arsenic	5.0	0.15	0.10	
Barium	100.0	--	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	--	0.050	
Selenium	1.0	ND	0.10	
Silver	5.0	--	0.10	
Unregulated Metals				
Boron		--	0.10	
Aluminum		--	0.10	
Antimony		--	0.10	
Beryllium		--	0.10	
Calcium		15	5.0	
Cobalt		--	0.10	
Copper		ND	0.10	
Nickel		ND	0.10	
Iron		0.66	0.50	
Magnesium		12	0.50	
Manganese		11	0.10	
Molybdenum		--	0.10	
Sodium		1114	10	
Strontium		--	0.50	
Thallium		--	0.10	
Vanadium		--	0.10	
Zinc		0.45	0.10	
Tin		--	1.0	
Titanium		--	0.50	
Silica		--	10	
Tungsten		--	0.50	

Notes and Definitions for this Report:

DATE RUN 02/26/02

ANALYST JTH

INSTRUMENT ICPMS

FILE ID

CONC FACTOR 50

UNITS mg/l

03/13/02 16:24

TEST RESULTS BY SAMPLE

Sample Description: SS222002 dup TCLP

Lab No: 03D

Test Description: TCLP, Metals

Method:

Test Code: TCLPMP

Collected: 02/20/02 10:00

Category: SOIL

PARAMETER		RESULT	LIMIT	UNITS
Element	Regulatory			
	Limit (mg/L)			
Arsenic	5.0	0.12	0.10	
Barium	100.0	--	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	--	0.0010	
Selenium	1.0	ND	0.10	
Silver	5.0	--	0.10	
Unregulated Metals				
Boron		--	0.10	
Aluminum		--	0.10	
Antimony		--	0.10	
Beryllium		--	0.10	
Calcium		16	5.0	
Cobalt		--	0.10	
Copper		ND	0.10	
Nickel		ND	0.10	
Iron		ND	0.50	
Magnesium		11	0.50	
Manganese		11	0.10	
Molybdenum		--	0.10	
Sodium		1072	10	
Strontium		--	0.50	
Thallium		--	0.10	
Vanadium		--	0.10	
Zinc		0.41	0.10	
Tin		--	1.0	
Titanium		--	0.50	
Silica		--	10	
Tungsten		--	0.50	

Notes and Definitions for this Report:

DATE RUN 02/26/02

ANALYST JTH

INSTRUMENT ICPMS

FILE ID

CONC FACTOR 50

UNITS mg/l

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TEST RESULTS BY SAMPLE

Sample Description: SS322002 TCLP
Test Description: TCLP, Metals
Collected: 02/20/02 10:35

Lab No: 04D
Method:
Category: SOIL

Test Code: TCLPMP

PARAMETER		RESULT	LIMIT	UNITS
Element	Regulatory			
	Limit (mg/L)			
Arsenic	5.0	ND	0.10	
Barium	100.0	--	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	--	0.0010	
Selenium	1.0	ND	0.10	
Silver	5.0	--	0.10	
Unregulated Metals				
Boron		--	0.10	
Aluminum		--	0.10	
Antimony		--	0.10	
Beryllium		--	0.10	
Calcium		13	5.0	
Cobalt		--	0.10	
Copper		ND	0.10	
Nickel		0.16	0.10	
Iron		ND	0.50	
Magnesium		6.2	0.50	
Manganese		7.1	0.10	
Molybdenum		--	0.10	
Sodium		1184	10	
Strontium		--	0.50	
Thallium		--	0.10	
Vanadium		--	0.10	
Zinc		0.89	0.10	
Tin		--	1.0	
Titanium		--	0.50	
Silica		--	10	
Tungsten		--	0.50	

Notes and Definitions for this Report:

DATE RUN 02/26/02
ANALYST JTH
INSTRUMENT ICPMS
FILE ID
CONC FACTOR 50
UNITS mg/l

TEST METHODOLOGIES

Carbon Dioxide	SM 4500-CO2-C (titrimetric)
Dissolved Oxygen	Field test, electrode method
ICP (Inductively Coupled Argon Plasma Emission Spectroscopy)	
Wastewater & drinking water	EPA Method 200.7
RCRA TCLP & groundwater	SW 846 Method 6010
Solids	SW 846 Method 6010
ICP/MS (Inductively Coupled Argon Plasma Mass Spectrometry)	
Wastewater & drinking water	EPA Method 200.8
RCRA TCLP & groundwater	SW 846 Method 6020
Solids	SW 846 Method 6020
Sodium (Na) - ICP (Inductively Coupled Argon Plasma Emission Spectroscopy)	
Wastewater & drinking water	EPA (1983) Method 200.7
RCRA TCLP & groundwater	SW 846 Method 6010
Solids	SW 846 Method 6010
Arsenic (As) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Calcium (Ca) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Cadmium (Cd) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Chromium (Cr) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Copper (Cu) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Iron (Fe) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Potassium (K) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Magnesium (Mg) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Manganese (Mn) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Sodium (Na) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Nickel (Ni) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Lead (Pb) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Selenium (Se) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Zinc (Zn) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Chemical Oxygen Demand	EPA Method 410.4 (manual colorimetric)
Total Dissolved Solids	SM 2540C Gravimetric, dried at 180C

03/13/02 16:24

TEST METHODOLOGIES

Total Organic Carbon, Aqueous	EPA Method 415.2 (low-level, persulfate oxidation) SW-846 Method 9060
Solid Waste, water extract	ASTM D 3987, Standard Test Method for Shake Extraction of Solid Waste with water
TCLP Extraction	SW-846 Method 1311
Zero Headspace Extraction	SW-846 Method 1311
Total Petroleum Hydrocarbons (gravimetric)	EPA Method 1664 (Hexane extraction, followed by treatment with silica gel, gravimetric determination) Method Detection Limit-1.9 mg/L
Bicarbonate alkalinity	SM 4500-CO2-D (17th edition)
Total Alkalinity	SM 2320B (titrimetric)
Chloride, Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
Specific Conductance	EPA Method 120.1
Ammonia	SM 4500-NH3-G 19th ed. Automated phenate EPA Method 350.1
Nitrate/Nitrite (combined), Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
Nitrate, Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
pH	EPA Method 150.1 (electrometric)
Phosphorous, Total	EPA Method 365.3 SM4500-P-F Automated Ascorbic Acid Reduction
Redox Potential of Water	ASTM Method D 1498
Sulfide in Aqueous Samples	EPA Method 376.2 - Methylene Blue Method
Sulfate, Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
Total Kjeldahl Nitrogen	SM 4500-Norg-C Semi-Micro Kjeldahl SM 4500-NH3-G Automated phenate

Order # 02-02-812

03/13/02 16:24

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REPORT COMMENTS

Methane Results:

0202812-01G	2.0 ug/L
0202812-02G	2.0 ug/L
0202812-03G	2.0 ug/L
0202812-04G	2.0 ug/L

0202812
0202825

Sample Collector(s): Mike Rooney

Sample Purpose : Soils testing

Analysis:

(1) Liter Amber glass unpreserved for : See attached

Relinquished By	Date	Time	Accepted By	Date	Time
Mrs. Rooney	2/20/02	13:40	Mrs. Frigo	2/20/02	13:40
Frigo	2/20/02	14:45	Rob. [Signature]	2/20/02	14:45

* Note Run Duplicate on sample # SS 22002

Furnace Bay GW study COC

Analyses	methodology	TCLP Method	D3987
Sodium	EPA 200.7	X	X
Potassium	EPA 200.7	X	
Iron	EPA 200.7	X	
Manganese	EPA 200.7	X	
Arsenic	EPA 200.8	X	
Cadmium	EPA 200.7	X	
Chromium	EPA 200.7	X	
Copper	EPA 200.7	X	
Lead	EPA 200.8	X	
Zinc	EPA 200.7	X	
Nickel	EPA 200.7	X	
Selenium	EPA 200.7	X	
Nitrate-Nitrite-Nitrogen	EPA 353.2/300.0	X	
TKN	EPA 351.3	X	
Nitrate-nitrogen	EPA 300	X	
Total nitrogen		X	
Ammonia Nitrogen	SM 4500-NH3-E	X	
Chemical Oxygen Demand	SM 5220-D	X	X
Calcium	EPA 200.7	X	
Magnesium	EPA 200.7	X	
Bicarbonates	SM4500CO2-D	X	X
Chloride	SM4500CL-F	X	
Sulfate	SM4500SO42-B	X	
Sulfide	EPA 376.2	X	X
Total petroleum hydrocarbons	EPA 418.1 modified	X	
Total Phosphorous	EPA 365.3	X	
Total Organic Carbon	SM5310-C	X	X
Alkalinity	SM 2320B	X	X
Dissolved Solids	EPA 160.1	X	
Carbon Dioxide	SM4500	X	X
Ferrous Iron	SM 3500 Fe	X	
Dissolved oxygen			X
Specific conductance	EPA 120.1/SM2510B		X
Oxidation Reduction Potential			X
pH			X
Methane	SM-6211	X	



ATLANTIC COAST
Laboratories, Incorporated

630 Churchmans Road
Newark, Delaware 19702
302-266-9121 • 454-8720 (FAX)

REPORT OF ANALYSIS

Musiel
DO

Maryland Environmental Svc
2011 Commerce Park Drive
Annapolis, MD 21401

Attn: Mr. Rex A. Lloyd

Order #: 02-02-825
Date: 03/13/02 16:37
Work ID: Furnace Bay GW Study-Soils
Date Received: 02/20/02
Date Completed: 03/13/02

Purchase Order: 98-04-11/1-01 Act:2170292
Invoice Number:

Client Code: MES_AB

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	SS422002

<u>Sample Number</u>	<u>Sample Description</u>
02	SS522002

This cover page is an integral part of the analytical report
that follows.

Certified By
Warren Van Arsdall

RECEIVED
MAR 18 2002
Maryland Environmental Service
03

03/13/02 16:25

TEST RESULTS BY SAMPLE

Sample: 01A SS422002
Collected: 02/20/02 10:50

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units By</u>	<u>Analyzed Dt/Tm</u>
Solid Waste, water extract	02/27/02		date extracted JK	
TCLP Extraction	02/27/02		date extracted JK	
TCLP, Zero Headspace Ext	02/27/02		data extracted JK	

Sample: 01B SS422002 TCLP
Collected: 02/20/02 10:50

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units By</u>	<u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	891	1.0	mg/L as CaCO3 BLT	03/11/02 08:55
Carbon dioxide, free	<1.25		mg/L as CO2 REP	03/13/02 13:45
Chloride, Ion Chrom	ND	0.39	mg/L MSO	02/27/02 21:52
Ferrous Iron	ND	0.02	mg/L BLT	02/28/02 07:15
Ion chromatography	02/27/02		date complete	
Nitrate, Ion Chrom	ND	0.06	mg/L as N MSO	02/27/02 21:52
Nitrite, Ion Chrom	ND	0.02	mg/L as N MSO	02/27/02 21:52
Solids, Total Dissolved	4409	20	mg/L MS	03/01/02 13:25
Sulfate, Ion Chrom	18.2	0.38	mg/L MSO	02/27/02 21:52
Total Alkalinity-Titration	891	1.0	mg/L as CaCO3 BLT	03/11/02 08:55

Sample: 01C SS422002 TCLP
Collected: 02/20/02 10:50

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units By</u>	<u>Analyzed Dt/Tm</u>
Ammonia, Automated Phenate	ND	0.20	mg/L as N KS	02/28/02 12:06
Chemical Oxygen Demand	5570	10	mg/L KS	03/05/02 10:25
Digestion, TKN/Total P	02/27/02		date prepared MVP	
Phosphorous, Total	0.07	0.02	mg/L as P MVP	02/27/02 13:36
Total Kjeldahl Nitrogen	0.77	0.20	mg/L as N MVP	02/27/02 13:36
Total Nitrogen	0.77	0.20	mg/L as N MVP	02/27/02 13:36
Total Organic Carbon, Aq	1939	100	mg/L KS	02/28/02 15:56

Sample: 01D SS422002 TCLP
Collected: 02/20/02 10:50

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units By</u>	<u>Analyzed Dt/Tm</u>
Metals, ICP/MS	03/01/02		date analyzed JTH	03/01/02 16:50
TCLP, Arsenic	03/01/02		date analyzed	
TCLP, Cadmium	03/01/02		date analyzed	
TCLP, Calcium	03/01/02		date complete	
TCLP, Chromium	03/01/02		date analyzed	
TCLP, Copper	03/01/02		date analyzed	
TCLP, Iron	03/01/02		date analyzed	
TCLP, Lead	03/01/02		date analyzed	
TCLP, Magnesium	03/01/02		date analyzed	
TCLP, Manganese	03/01/02		date analyzed	
TCLP, Nickel	03/01/02		date analyzed	
TCLP, Potassium	03/01/02		date analyzed	

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03/13/02 16:25

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TEST RESULTS BY SAMPLE

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
TCLP, Selenium	03/01/02			date analyzed	
TCLP, Sodium	03/01/02			date analyzed	
TCLP, Zinc	03/01/02			date analyzed	

Sample: 01E SS422002 TCLP
Collected: 02/20/02 10:50

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Tot. Pet. Hyd., Grav, 1664	ND	5.0	mg/L KSC		03/06/02 09:30

Sample: 01F SS422002 TCLP
Collected: 02/20/02 10:50

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	ND	0.03	mg/L MSO		02/27/02 09:45

Sample: 01H SS422002 ASTM leach
Collected: 02/20/02 10:50

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Metals, ICP/OES	03/05/02			date analyzed	
Sodium, ICP	7.60	0.20	mg/L LC		03/05/02 09:31

Sample: 01I SS422002 ASTM leach
Collected: 02/20/02 10:50

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	6.0	1.0	mg/L as CaCO3	BLT	03/11/02 08:55
Carbon dioxide, free	<1.25		mg/L as CO2	REP	03/13/02 14:45
Redox Potential of Water	91		mV	BLT	02/27/02
Specific Conductance	53	1.08	umhos at 25C	BCJ	03/01/02 13:05
Total Alkalinity-Titration	6.0	1.0	mg/L as CaCO3	BLT	03/11/02 08:55
pH	8.00	0.5	pH Units	BLT	03/04/02 11:35

Sample: 01J SS422002 ASTM leach
Collected: 02/20/02 10:50

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Chemical Oxygen Demand	ND	10	mg/L KS		02/28/02 11:05
Total Organic Carbon, Aq	ND	1.0	mg/L KS		02/28/02 15:56

Sample: 01K SS422002 ASTM leach
Collected: 02/20/02 10:50

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	0.05	0.03	mg/L MSO		02/27/02 09:45

03/13/02 16:25

TEST RESULTS BY SAMPLE

Sample: 02A SS522002
Collected: 02/20/02 11:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Solid Waste, water extract	02/27/02		date extracted	JK	
TCLP Extraction	02/27/02		date extracted	JK	
TCLP, Zero Headspace Ext	02/27/02		data extracted	JK	

Sample: 02B SS522002 TCLP
Collected: 02/20/02 11:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	840	1.0	mg/L as CaCO3	BLT	03/11/02 08:55
Carbon dioxide, free	1.25		mg/L as CO2	TLC	02/27/02 13:45
Chloride, Ion Chrom	ND	0.39	mg/L	MSO	02/27/02 22:27
Ferrous Iron	ND	0.02	mg/L	BLT	02/28/02 07:15
Ion chromatography	02/27/02		date complete	MSO	
Nitrate, Ion Chrom	ND	0.06	mg/L as N	MSO	02/27/02 22:27
Nitrite, Ion Chrom	ND	0.02	mg/L as N	MSO	02/27/02 22:27
Solids, Total Dissolved	4441	20	mg/L	MS	03/01/02 13:25
Sulfate, Ion Chrom	78.0	0.38	mg/L	MSO	02/27/02 22:27
Total Alkalinity-Titration	840	1.0	mg/L as CaCO3	BLT	03/11/02 08:55

Sample: 02C SS522002 TCLP
Collected: 02/20/02 11:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Ammonia, Automated Phenate	ND	0.20	mg/L as N	KS	02/28/02 12:06
Chemical Oxygen Demand	5540	10	mg/L	KS	03/05/02 10:25
Digestion, TKN/Total P	02/27/02		date prepared	MVP	
Phosphorous, Total	0.06	0.02	mg/L as P	MVP	02/27/02 13:36
Total Kjeldahl Nitrogen	0.78	0.20	mg/L as N	MVP	02/27/02 13:36
Total Nitrogen	0.78	0.20	mg/L as N	MVP	02/27/02 13:36
Total Organic Carbon, Aq	1932	100	mg/L	KS	02/28/02 15:56

Sample: 02D SS522002 TCLP
Collected: 02/20/02 11:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Metals, ICP/MS	03/01/02		date analyzed	JTH	03/01/02 16:58
TCLP, Arsenic	03/01/02		date analyzed		
TCLP, Cadmium	03/01/02		date analyzed		
TCLP, Calcium	03/01/02		date complete		
TCLP, Chromium	03/01/02		date analyzed		
TCLP, Copper	03/01/02		date analyzed		
TCLP, Iron	03/01/02		date analyzed		
TCLP, Lead	03/01/02		date analyzed		
TCLP, Magnesium	03/01/02		date analyzed		
TCLP, Manganese	03/01/02		date analyzed		
TCLP, Nickel	03/01/02		date analyzed		
TCLP, Potassium	03/01/02		date analyzed		

03/13/02 16:25

TEST RESULTS BY SAMPLE

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
TCLP, Selenium	03/01/02		date analyzed		
TCLP, Sodium	03/01/02		date analyzed		
TCLP, Zinc	03/01/02		date analyzed		

Sample: 02E SS522002 TCLP
Collected: 02/20/02 11:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Tot. Pet. Hyd., Grav, 1664	ND	5.0	mg/L	KSC	03/06/02 10:55

Sample: 02F SS522002 TCLP
Collected: 02/20/02 11:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	ND	0.03	mg/L	MSO	02/27/02 09:45

Sample: 02H SS522002 leach
Collected: 02/20/02 11:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Metals, ICP/OES	03/05/02		date analyzed		
Sodium, ICP	7.61	0.20	mg/L	LC	03/05/02 09:34

Sample: 02I SS522002 leach
Collected: 02/20/02 11:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Alkalinity, Bicarbonate	4.2	1.0	mg/L as CaCO3	BLT	03/11/02 08:55
Carbon dioxide, free	1.25		mg/L as CO2	TLC	02/27/02 13:45
Redox Potential of Water	144		mV	BLT	02/27/02
Specific Conductance	190	1.08	umhos at 25C	BCJ	03/01/02 13:05
Total Alkalinity-Titration	4.2	1.0	mg/L as CaCO3	BLT	03/11/02 08:55
pH	6.64	0.5	pH Units	BLT	03/04/02 11:35

Sample: 02J SS522002 leach
Collected: 02/20/02 11:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Chemical Oxygen Demand	ND	10	mg/L	KS	03/05/02 10:25
Total Organic Carbon, Aq	1.3	1.0	mg/L	KS	03/07/02 14:52

Sample: 02K SS522002 leach
Collected: 02/20/02 11:00

Category: SOIL

<u>Test Description</u>	<u>Result</u>	<u>Det Limit</u>	<u>Units</u>	<u>By</u>	<u>Analyzed Dt/Tm</u>
Sulfide, colorimetric	0.06	0.03	mg/L	MSO	02/27/02 09:45

03/13/02 16:25

TEST RESULTS BY SAMPLE

Sample Description: SS422002 TCLP

Lab No: 01D

Test Description: TCLP, Metals

Method:

Test Code: TCLPMP

Collected: 02/20/02 10:50

Category: SOIL

PARAMETER		RESULT	LIMIT	UNITS
Element	Regulatory			
	Limit (mg/L)			
Arsenic	5.0	ND	0.10	
Barium	100.0	0.19	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	ND	0.0010	
Selenium	1.0	ND	0.10	
Silver	5.0	ND	0.10	
Unregulated Metals				
Boron	-	-	0.10	
Aluminum	-	-	0.10	
Antimony	-	-	0.10	
Beryllium	-	-	0.10	
Calcium	-	7.50	5.0	
Cobalt	-	-	0.10	
Copper	-	ND	0.10	
Nickel	-	ND	0.10	
Iron	-	ND	0.50	
Magnesium	-	2.60	0.50	
Manganese	-	3.80	0.10	
Molybdenum	-	-	0.10	
Sodium	-	1180	10	
Strontium	-	-	0.50	
Thallium	-	-	0.10	
Vanadium	-	-	0.10	
Zinc	-	0.33	0.10	
Tin	-	-	1.0	
Titanium	-	-	0.50	
Silica	-	-	10	
Tungsten	-	-	0.50	

Correct

Notes and Definitions for this Report:

DATE RUN _____
ANALYST _____
INSTRUMENT _____
FILE ID _____
CONC FACTOR 50
UNITS mg/L

Sample Description: SS522002 TCLP

Lab No: 02D

Test Description: TCLP, Metals

Method:

Test Code: TCLPMP

Collected: 02/20/02 11:00

Category: SOIL

PARAMETER		RESULT	LIMIT	UNITS
Element	Regulatory Limit (mg/L)			
Arsenic	5.0	ND	0.10	
Barium	100.0	2.90	0.10	
Chromium	5.0	ND	0.10	
Cadmium	1.0	ND	0.10	
Lead	5.0	ND	0.10	
Mercury	0.2	ND	0.0010	
Selenium	1.0	ND	0.10	
Silver	5.0	ND	0.10	
Unregulated Metals				
Boron		-	0.10	
Aluminum		-	0.10	
Antimony		-	0.10	
Beryllium		-	0.10	
Calcium		21.1	5.0	
Cobalt		-	0.10	
Copper		0.36	0.10	
Nickel		0.44	0.10	
Iron		ND	0.50	
Magnesium		4.96	0.50	
Manganese		3.71	0.10	
Molybdenum		-	0.10	
Sodium		1143	10	
Strontium		-	0.50	
Thallium		-	0.10	
Vanadium		-	0.10	
Zinc		0.65	0.10	
Tin		-	1.0	
Titanium		-	0.50	
Silica		-	10	
Tungsten		-	0.50	

Notes and Definitions for this Report:

DATE RUN _____
ANALYST _____
INSTRUMENT _____
FILE ID _____
CONC FACTOR 50
UNITS mg/L

Carbon Dioxide	SM 4500-CO2-C (titrimetric)
ICP (Inductively Coupled Argon Plasma Emission Spectroscopy)	
Wastewater & drinking water	EPA Method 200.7
RCRA TCLP & groundwater	SW 846 Method 6010
Solids	SW 846 Method 6010
ICP/MS (Inductively Coupled Argon Plasma Mass Spectrometry)	
Wastewater & drinking water	EPA Method 200.8
RCRA TCLP & groundwater	SW 846 Method 6020
Solids	SW 846 Method 6020
Sodium (Na) - ICP (Inductively Coupled Argon Plasma Emission Spectroscopy)	
Wastewater & drinking water	EPA (1983) Method 200.7
RCRA TCLP & groundwater	SW 846 Method 6010
Solids	SW 846 Method 6010
Arsenic (As) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Calcium (Ca) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Cadmium (Cd) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Chromium (Cr) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Copper (Cu) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Iron (Fe) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Potassium (K) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Magnesium (Mg) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Manganese (Mn) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Sodium (Na) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Nickel (Ni) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Lead (Pb) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Selenium (Se) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Zinc (Zn) - TCLP Leachate	SW-846 Method 6010/6020 (ICP/ICP-MS)
Chemical Oxygen Demand	EPA Method 410.4 (manual colorimetric)
Total Dissolved Solids	SM 2540C Gravimetric, dried at 180C
Total Organic Carbon, Aqueous	EPA Method 415.2 (low-level, persulfate oxidation)

TEST METHODOLOGIES

	SW-846 Method 9060
Solid Waste, water extract	ASTM D 3987, Standard Test Method for Shake Extraction of Solid Waste with water
TCLP Extraction	SW-846 Method 1311
Zero Headspace Extraction	SW-846 Method 1311
Total Petroleum Hydrocarbons (gravimetric)	
EPA Method 1664 (Hexane extraction, followed by treatment with silica gel, gravimetric determination)	
Method Detection Limit-1.9 mg/L	
Bicarbonate alkalinity	SM 4500-CO2-D (17th edition)
Total Alkalinity	SM 2320B (titrimetric)
Chloride, Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
Specific Conductance	EPA Method 120.1
Ammonia	SM 4500-NH3-G 19th ed. Automated phenate EPA Method 350.1
Nitrite, Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
Nitrate, Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
pH	EPA Method 150.1 (electrometric)
Phosphorous, Total	EPA Method 365.3 SM4500-P-F Automated Ascorbic Acid Reduction
Redox Potential of Water	ASTM Method D 1498
Sulfide in Aqueous Samples	EPA Method 376.2 - Methylene Blue Method
Sulfate, Ion Chromatography	
Drinking water, wastewater	Method 300.0
Groundwater, RCRA wastes	SW-846 Method 9056
Total Kjeldahl Nitrogen	SM 4500-Norg-C Semi-Micro Kjeldahl SM 4500-NH3-G Automated phenate

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03/13/02 16:25

REPORT COMMENTS

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Methane Results:

0202825-01G	2.0 ug/L
0202825-02G	2.0 ug/L

DO values not present:

Reason - for this - Not logged in - oh

Received: 02/20/02

03/13/02 16:16:29

Maryland Environmental Svc

Methane Results:

0202825-01G 2.0 ug/L

0202825-02G 2.0 ug/L

0202812
0202825

Sample Collector(s): Mike Rooney

Sample Purpose : Soils testing

Analysis:

Relinquished By	Date	Time	Accepted By	Date	Time
Mrs. Rooney	2/20/02	13:40	Mrs. Fridgen	2/20/02	13:40
Fridgen	2/20/02	14:45	[Signature]	2/20/02	14:45

* Note Run Duplicate on sample # SS 22002

Furnace Bay GW study COC

Analyses	methodology	TCLP Method	D3987
Sodium	EPA 200.7	X	X
Potassium	EPA 200.7	X	
Iron	EPA 200.7	X	
Manganese	EPA 200.7	X	
Arsenic	EPA 200.8	X	
Cadmium	EPA 200.7	X	
Chromium	EPA 200.7	X	
Copper	EPA 200.7	X	
Lead	EPA 200.8	X	
Zinc	EPA 200.7	X	
Nickel	EPA 200.7	X	
Selenium	EPA 200.7	X	
Nitrate-Nitrite-Nitrogen	EPA 353.2/300.0	X	
TKN	EPA 351.3	X	
Nitrate-nitrogen	EPA 300	X	
Total nitrogen		X	
Ammonia Nitrogen	SM 4500-NH3-E	X	
Chemical Oxygen Demand	SM 5220-D	X	X
Calcium	EPA 200.7	X	
Magnesium	EPA 200.7	X	
Bicarbonates	SM4500CO2-D	X	X
Chloride	SM4500CL-F	X	
Sulfate	SM4500SO42-B	X	
Sulfide	EPA 376.2	X	X
Total petroleum hydrocarbons	EPA 418.1 modified	X	
Total Phosphorous	EPA 365.3	X	
Total Organic Carbon	SM5310-C	X	X
Alkalinity	SM 2320B	X	X
Dissolved Solids	EPA 160.1	X	
Carbon Dioxide	SM4500	X	X
Ferrous Iron	SM 3500 Fe	X	
Dissolved oxygen			X
Specific conductance	EPA 120.1/SM2510B		X
Oxidation Reduction Potential			X
pH			X
Methane	SM-6211	X	